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PRACTICAL OBSERVATIONS
ON
THE CURE
OF THE
GONORRHOEA VIRULENTA
IN MEN.

BY

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" THERE IS NOT PERHAPS IN SURGERY A MORE DELICATE POINT, THAN THE PROPER
MANAGEMENT OF A STUBBORN GONORRHŒA."

SHARP'S CRITICAL ENQUIRY.

THE SECOND EDITION,
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TO

JOHN SIMS, M. D.

AS A MARK OF
HIGH RESPECT FOR HIS LEARNING

AND

PROFESSIONAL ABILITIES;

AND A SINCERE

EXPRESSION OF ESTEEM FOR HIS

CHARACTER,

AND VALUE FOR HIS FRIENDSHIP;

THIS

ESSAY IS AGAIN INSCRIBED,

BY

THE AUTHOR.

*Grafton Street,
July 7, 1817.*

THE UNIVERSITY OF CHICAGO

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ADVERTISEMENT TO THE FIRST EDITION.

IT is with no intention of arrogating any thing to myself, that the following essay is brought forward, in which the opinions and practice of men eminent in their profession are controverted. The acknowledged imperfection of human powers, even when aided by study and experience, furnishes a motive for new investigations; and an apology, if any be necessary, for submitting the result of them to public consideration.

ADVERTISEMENT TO THE SECOND EDITION.

THE following essay has been out of print about ten years ; during which time, the Author has been frequently solicited to republish it.— But various interruptions, added to a very indifferent state of health, have hitherto prevented his compliance with this request; for before reprinting, he esteemed it a duty to his readers to revise it, and to make such additions and corrections as his further experience suggested. This he has done to the best of his ability.

CONTENTS.

CHAPTER I.

	PAGE.
Of the nature of the poison of the gonorrhœa virulenta	1

CHAPTER II.

Of the seat of the gonorrhœa virulenta in men, with it's appearances in the urethra	10
---	----

CHAPTER III.

The difference between the poison of the gonorrhœa virulenta, and that of the lues venerea considered	20
---	----

CHAPTER IV.

Of the treatment of the gonorrhœa virulenta in men	34
--	----

CHAPTER V.

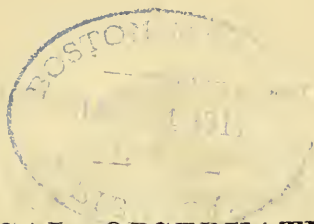
Of the final cure of the gonorrhœa of the first and second species, and of the cure of the gonorrhœa of the third species, by injections	56
--	----

CHAPTER VI.

Of the cure of the gonorrhœa of the second species by injections only	85
---	----

CHAPTER VII.

Of the treatment of the venereal gleet	108
--	-----



PRACTICAL OBSERVATIONS,

&c.

CHAPTER I.

OF THE NATURE OF THE POISON OF THE GONORRHŒA VIRULENTA.

BEFORE we undertake the cure of any disease, we ought to make ourselves acquainted with every circumstance, that can throw light upon it's nature, and the causes which produce it. Thus it is of some consequence, that the nature of the poison of the gonorrhœa virulenta should be understood, upon which very different opinions have been entertained. It is acknowledged by all, that it is of an infectious nature, and is received from an impure coition between the sexes. As therefore it is communicated in the same manner as the external sores called chancres, and as the same person is often infected with both these complaints at the same time, it was naturally concluded, that the poison

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in both is the same. But this has not only been doubted, but absolutely denied by some authors. From long and attentive observation, however, I am convinced, that these complaints do not differ from each other in the nature of their poison, but merely from a different action of the same virus, affecting different parts. In support of this opinion, which I consider as very important, I shall adduce a few arguments, and the united testimony of other authors.

Mr. Benjamin Bell, a respectable writer in surgery, is one of those, who believe that the poison of the gonorrhœa, and that of the lues venerea, or a chancre, "*are in their nature essentially different, and proceed from different contagions.**" But were this the case, is it not surprising, that these different poisons should so frequently exist at the same time, and in the same part, and as it were in contact with each other, as must happen when a gonorrhœa and a chancre take place together in the urethra?

This heterogeneous conjunction is so contrary to the general laws of nature, with respect to other poisons, that Mr. Bell's opinion carries with it, at first sight, the appearance of great improbability. A few instances indeed may

* Bell on the Gonorrhœa, Vol. 1. p. 42.

occur, of two distinct infectious diseases existing together in the same person; as the itch, and lues: but one of these is in the blood, the other a local disease of the skin. Or should it be believed, that these diseases may be combined together, and form a new poison, called the sibbens of Scotland; even this has nothing analogous to the hypothesis of Mr. Bell. In short, I believe, it will be very seldom found, that any two different poisons, such as the small pox and the measles, are capable of communicating, at the same time, two diseases specifically different from each other*. As I hope to be able to

* Mr. Cruikshank has given us a striking proof of the improbability of such a combination, in his excellent Treatise on the Lymphatics. His words are, “ Sometimes the
“ presence of one infectious matter will prevent, for a time,
“ the agency of another in the cellular membrane. A very
“ curious instance of this I met with ten years ago:
“ Elizabeth Inwood, two years and a half old, I inoculated
“ for the small pox; the mother was poor, and lived out of
“ the town; I was asked in passing: I said I would call on
“ that day week; I was prevented, and on the ninth day
“ found her very ill, but the punctures I had made in the
“ arm were invisible. I, of course, after this, called every
“ day to enquire into the cause of this strange appearance.
“ She had inflamed eyes, sneezing, redness on the surface
“ of the skin, and other symptoms of the measles; it was
“ the measles. These went through their usual course, and
“ fourteen days after, when the constitution was getting free

demonstrate, that the gonorrhœa arises from the same poison as that which produces a chancre, I shall not pursue the argument by analogy any further. Numerous are the instances, in which a simple gonorrhœa has produced a subsequent lues; especially where the former has been improperly treated. Astruc, Turner, and other old writers, repeatedly mention this circumstance: let us, however, hear the opinion of two or three later authors of high reputation.

Sir William Fordyce says, "I have formerly brought on a lues in several, by injections

" from this infection, the punctures I had formerly made in the arm began to inflame, and eight days after the small pox appeared".

Treatise on the Absorbents, p. 126.

Mr. Hunter, in his Treatise on the Venereal Disease, notices the same fact; and Dr. Darwin, in his Zoonomia, Vol. I. p. 402, says that two similar cases fell under his care.

Since the above has been written, two cases have been related by Dr. Russel, (Medical and Chirurgical Transactions, Vol. II.) shewing the existence of the small pox and measles in the same persons, and at the same time. As, however these instances occurred only twice, while both diseases were very prevalent, they may be considered merely as exceptions to a general rule; if indeed the rash which sometimes accompanies the eruption of the small pox, is not mistaken for the measles.

“ with calomel,” &c.* And Mr. Hunter expresses himself as follows on this subject. “ If any
“ doubt still remains with respect to the two
“ diseases being of the same nature, it will be
“ removed by considering that the matter pro-
“ duced in both is of the same kind; and has the
“ same properties; the proofs of which are, that
“ the matter of a gonorrhœa will produce either
“ a gonorrhœa, a chancre, or the lues venerea;
“ and the matter of a chancre, will also pro-
“ duce either a gonorrhœa, a chancre, or the
“ lues venerea. The following case is an in-
“ stance of a gonorrhœa producing a lues
“ venerea. A gentleman twice contracted a
“ gonorrhœa, of which he was cured both times
“ without mercury. About two months after
“ each he had symptoms of the lues venerea—
“ those in consequence of the first infection,
“ were ulcers in the throat, which were removed
“ by the external application of mercury. The
“ symptoms in consequence of the second, were
“ blotches in the skin, for which also he used
“ the mercurial ointment, and was cured.†”

Dr. Monro, the celebrated professor of anatomy at Edinburgh, is also of opinion, that the

* Review of the Venereal Disease, p. 72.

† Treatise on the Venereal Disease, p. 15.

virus of these diseases is the same. I shall give a short extract on this subject, from a manuscript copy of his lectures in my possession, which was taken at the time, that I had the honor of attending them. In treating of injections in the cure of the gonorrhœa, his words are as follow:—
“ But should the injection succeed to our wish,
“ that by some astringent power it stops the
“ running, we risque the tainting of the consti-
“ tution, as the matter goes more readily into
“ the mass of blood. For it is a mistake to
“ suppose, that the gonorrhœa is not capable of
“ communicating the lues venerea; they are the
“ same disease.”

If any one should still entertain a doubt on this point, he may find the subject discussed in a full and able manner by Dr. Swediaur*; whose reasoning is very conclusive in favor of the opinion here mentioned: but it is too copious for an extract. These assertions I find confirmed by my own experience; I have seen instances of the lues venerea, in which the patients never had any other primary symptoms of the disease, than a common gonorrhœa.

In support of the opinion of the different nature of the two poisons, arguments have been adduced from a supposed inefficacy of mercury

* Treatise on the Venereal Disease, p. 25 and seq.

in the cure of the gonorrhœa; but I trust, that in the course of this essay, it will be proved to the satisfaction of my readers, that mercury, by means of it's circulation in the blood, will lessen the discharge, and remove all the symptoms of a virulent gonorrhœa; as the chordee, ardor urinæ, &c.; and that in some cases it will effect an entire cure, with as much certainty and celerity, as if the disease were a chancre or a bubo. So that the system, founded on the opinion that the virus of this disease is *altogether different* from the venereal virus, cannot, I think, receive any support, from what it's advocates have advanced against this remedy.

On this subject Mr. Bell argues as follows:—“ As a further support of this opinion, I may
“ add, that if the two diseases were of the same
“ nature, and produced by the same infection,
“ the remedies proving useful in the one, might
“ be expected to prove so likewise in the other.
“ Instead of this, we find that those upon which
“ we depend with most certainty in the gonorrhœa,
“ have no effect whatever in the cure of
“ syphilis. While mercury, which is the only
“ remedy, as we have observed above, upon
“ which any dependance can be placed for the
“ cure of syphilis, does not in gonorrhœa produce
“ *any advantage*. Nay, that in some

“ cases, *it evidently does harm.**” And in another place, the same author observes—
 “ That *no advantage* in the cure of the gonorrhœa is derived from *mercury*, or any remedy acting altogether on the constitution.†”

I am aware, that some authors, who acknowledge the virus of the syphilis, and that of the gonorrhœa, to be the same, differ very much in their opinion on the effects of mercury given internally in the cure of the latter disease. Some with Mr. Bell assert, that it has no effect in it's cure. Mr. Hunter, for example, is among those, who are of this opinion; his words are these:—“ I doubt very much of mercury having any specific virtue in this species of the disease, for I find, that it is as soon curable without mercury as with it.‡” And again he says, That “ mercury has no more power in curing the gonorrhœa, than any other medicine has.§” And afterwards the same author observes, “ The gonorrhœa is not *in the least affected by mercury.*||” Nevertheless he advises it to be given during the whole

* Bell on the Gonorrhœa, &c. Vol. I. p. 41.

† Ibid. p. 169.

‡ Treatise on the Venereal Disease, p. 73.

§ Ibid. p. 230.

|| Ibid. p. 331.

cure, to prevent any bad effects from the absorption of the poison.

I shall reserve for it's proper place, the elucidation of the effects of mercury given internally in the gonorrhœa virulenta, having aimed at little more in this chapter, than to show, that my opinion respecting the poison of the gonorrhœa virulenta is supported both by argument and respectable authority.

CHAPTER II.

OF THE SEAT OF THE GONORRHŒA VIRULENTA IN MEN, WITH IT'S APPEARANCES IN THE URETHRA.

THE gonorrhœa virulenta in men was supposed by many of the old writers, to be a diseased secretion from the prostate gland, the vesiculæ seminales, and Cowper's glands; but dissections by later surgeons have demonstrated, that the seat of this disease is in the urethra, and generally within two inches of its extremity, from which issues a discharge of yellowish or greenish purulent matter. This discharge is produced by an inflammation, excited by the action of the venereal poison, on the inner membrane of this part of the urethra. The disease is sometimes, but not always, attended with a chordee, ardor urinæ, &c. This variation is evidently owing to a difference in the degree of inflammation, and erosion of the surface of the urethra, in such cases.

As it will be of considerable importance, in the treatment and cure of this complaint, to ascertain the exact effects produced by the poison on the urethra, in all the different varieties

of the disease, I shall endeavour to point them out. It has been believed, that the gonorrhœa arose most frequently from ulcerations in different parts of the urethra, or the glands adjoining to it, but the researches of modern anatomists seem very nearly to have overthrown this opinion; and it has of late been asserted, that an ulceration of the urethra, never takes place in this disease. This doctrine appears to have been first advanced about the year 1750, by that celebrated anatomist the late Dr. Wm. Hunter, who taught it in his lectures. But although it is certainly true, that in most instances of gonorrhœa there is no ulceration of the urethra, it is equally certain, that this is not universally the case, as such a disease does sometimes, though rarely occur.

In my own practice I have in a common gonorrhœa, now and then, met with ulcers in the urethra. Where it's orifice has been naturally wide, I have several times distinctly seen them, both a little within, and at the extremity of this canal. In a few other cases, I have had no doubt, but that ulcers have existed in the urethra, within about half an inch of it's external orifice, although I have not been able to see them. This opinion is founded on the great hardness of the part (far exceeding that which would arise from an inflamed mucous gland) on the violence

of the inflammation and discharge, and on finding the disease yield to no remedy, but mercury given internally, or used in frictions. The ulcers in the urethra, which I have been able to inspect, have been of two kinds; namely, such as were in a painful corrosive or spreading state, and attended with an adjoining hardness and inflammation; and such as were in an indolent state, with very little hardness, or inflammation around them. It cannot therefore be doubted, but that the same variety exists in many other cases, where from the smallness of the orifice of the urethra, the fact cannot be ascertained by inspection.

To the existence of ulcers in the urethra many respectable writers have borne their testimony. Wiseman relates a case of a large chancre in the very entrance into the urethra, accompanied with a hard callous round the adjoining glans*. Astruc, in treating of the gonorrhœa, gives an account of ulcers, which break out on the internal surface of the urethra, towards it's extremity †. Van Swieten remarks, that Morgagni, in the dissection of the urethra affected by the gonorrhœa, had often seen the traces of

* Wiseman's Surgery, Vol. II, p. 334.

† Astruc on the Venereal Disease, 4th edition, translated 1754. p. 364.

an antecedent corrosion, viz. the abolition of the mucous lacunæ, scars in the urethra, &c.* Dr. Swediaur distinguishes very properly between such gonorrhœas as are attended with chancres in the urethra, and such as are not, and of the difference in their cure †. Mr. B. Bell observes, that chancres sometimes appear within the verge of the urethra ‡. In another place he informs us, that he had a patient with a foul chancre in the urethra §.

Dr. Alex. Monro likewise coincides in this opinion, and has expressed himself very strongly on the subject: the following is an extract from his lectures already mentioned. “ Some have
 “ taken a fancy, of late, of denying ulcerations
 “ altogether in the gonorrhœa. It is certainly
 “ to be allowed, that in slight cases of it, there
 “ is only an inflammation; but where the dis-
 “ ease is ill-treated, and the constitution irri-
 “ table, there is no doubt but ulcers form. The
 “ appearance of the matter, the particular pain,
 “ the dissections of Morgagni, who in this

* Van Swieten's Commentaries, by Elliot, Vol. XVII. p. 88 and 89.

† Treatise on the Venereal Disease, p. 32.

‡ Bell on the Gonorrhœa, &c. Vol. II. p. 15.

§ Ibid. p. 22.

“ particular is inconsistent, which we seldom
“ find. In his general account of the gonorrhœa,
“ rhœa, he says, that there is no ulceration; but
“ look to the particular cases, and he describes
“ cicatrices, the obliteration of the mucous
“ ducts; nay, forgetting the general opinion,
“ he explains these as the places, from which
“ the ulcerating matter had been discharged.
“ So there was an ulceration, that had united
“ the sides of the ducts, and we meet with
“ caruncles growing out of the urethra, warty
“ excrescences rooted within it, three quarters
“ of an inch deeper than the extremity of the
“ penis, which is an argumentum crucis. It
“ has been alleged, that in the gonorrhœa, we
“ do not find buboes, and that these are pro-
“ duced only where there is an ulceration. Now
“ I affirm, that buboes often arise from a go-
“ norrhœa. So that I have no doubt, but there
“ are slight excoriations, in some cases, and in
“ other cases, ulcerations in the urethra. We
“ have built too much upon the few dissections
“ we have had of this disease. In many slight
“ cases we can scarcely suppose any considerable
“ erosion. Morgagni in some cases could distin-
“ guish cicatrices, but I can conceive the urethra
“ may have been ulcerated, and yet no traces of
“ it shall be afterwards seen; for we see chan-
“ chres so healed up, that in a few years the

“ place of their existence cannot be pointed
“ out. The case is the same elsewhere. So,
“ upon the whole, the ulceration of the urethra
“ happens more frequently, than we could judge
“ from Morgagni’s cases ; we know that it has
“ taken place, in all the cases where cicatrices
“ have been discovered.”

Having, I hope, given sufficient proofs of the existence of chancres, or ulcers, in the urethra, the above extracts shall be followed by a short one, from a very valuable publication. “ Ulcers
“ are also seen occasionally in laying open the
“ urethra, but these are not frequent.*”

Where neither of the kind of ulcers before-mentioned exists in the urethra, there is certainly a considerable difference discernable, in the depth to which the poison penetrates into, or excoriates the inner membrane of the urethra, in different cases of gonorrhœa. Where a chordee and ardor urinæ take place to a considerable degree, and are attended with an excessive discharge, of a greenish purulent nature, and a considerable tension and inflammation along the course of the urethra, the venereal poison insinuates itself deeper into it’s inner surface, (and particularly into the lacunæ) than in those cases where these violent symptoms do

* Baillie’s Morbid Anatomy, p. 227.

not occur, and where only a moderate yellowish discharge takes place. I have frequently perceived this difference by the eye; and I have no doubt of it's being always discernable, were it possible to see the whole of the affected surface of the urethra*. As a further proof of the difference in the degree of erosion here related, I might mention the greater obstinacy in the cure of most of the former cases, compared with those of the latter.

As the spurious or external gonorrhœa is a disease of a very similar kind to that which is seated in the urethra, we may, with great propriety, illustrate by it some of the varieties of the latter disease. Sometimes the gonorrhœa spuria is attended with large and deep ulcers upon the prepuce or glans, with much inflammation and hardness. At other times with

* In some of these cases this disease is a mere superficial inflammation of the inner membrane of the urethra, without any apparent irregularities on it's surface, or any induration of the corpus spongiosum; in others, the diseased surface is unequal and rough, like that of a file, and when minutely viewed, would, no doubt, be found to be a congeries of little ulcerations. I have seen such a surface so raw, as to bleed after every evacuation of the urine. In the last cases alluded to, there is sometimes an induration of the orifice of the urethra, and of the substance of the corpus spongiosum to a small extent.

those which are small, and with a less degree of inflammation and hardness. In some cases the poison inflames the tender skin and subjacent parts of the glans and prepuce, to such a depth as to thicken and enlarge them; but without producing distinct ulcers. In all these affections, a considerable secretion of a greenish or yellow pus takes place. In other cases the excoriation of the surface is merely superficial, and without any thickening. The inflammation is also so slight as to occasion a smaller secretion of pus, of a lighter colour than in the other kinds of this disease.

Towards the more completé investigation of this subject, it will be of use to observe, that the gonorrhœa virulenta in general affects the urethra partially; either in irregularly shaped patches, which are connected with each other, or in distinct inflamed spots, which secrete the purulent matter. I have sometimes been able to see these appearances just within the orifice of the urethra. Similar appearances are more distinctly seen in the gonorrhœa spuria, the thin cuticle on the glans or prepuce, being in this case eroded by the poison. At the beginning of the disease, when the glans is naturally covered by the prepuce, an erosion of any particular spot, either on the glans or prepuce, generally produces one, of a corresponding size and

shape, on the part usually in contact with it. Sometimes this appearance takes place in a number of distinct spots at the same time; so that there appear between them irregular portions of sound cuticle. If the disease in this state be neglected, the erosion generally goes on, till the whole of the cuticle on the glans and prepuce is destroyed; but if the parts be washed only with simple water, it is usually checked in its progress. I have no doubt, but that the gonorrhœa vera spreads also along the inner membrane of the urethra, by the contact of its diseased side with the opposite sound side; and that it would spread in this manner, in a short time, from one end of the urethra to the other, were it not checked by the repeated ablutions of the urine. I had written this account from actual observation, without recollecting, that Dr. Alex. Monro had given a very similar description of these diseases in his lectures. I will transcribe the passage as a conclusion to the chapter.—“ The application of the poison to
“ the urethra is seldom equal and universal.
“ There is no just comparison between it and
“ the catarrh upon the nose, where the mem-
“ brane is every where affected equally; for
“ here one part always suffers more than ano-
“ ther, and it is seldom that we find external
“ ulcers occupying the glans uniformly, but it

“ is affected in spots; it is in like manner the
“ same within the urethra, as particular spots
“ of it are chiefly affected. We find eschars in
“ a few places, and an obliteration of certain of
“ the mucous ducts; and the patient in making
“ water, finds the pain more in one place than
“ another—so we are to compare the affection
“ of the membrane of the urethra, to the effects
“ produced on the glans.”

CHAPTER III.

THE DIFFERENCE BETWEEN THE POISON OF THE GONORRHŒA VIRULENTA, AND THAT OF THE LUES VENEREA CONSIDERED.

THE more perfect our ideas of the nature and properties of the venereal poison are, the more likely are we to apply an effectual remedy for its destruction. It was formerly believed, that the virus of a chancre, or a bubo, and that of a secondary infection in the blood, or a constitutional disease, called the lues venerea, were altogether the same; as was also the matter of the gonorrhœa, by those who considered this as venereal. Mr. Hunter, however, was the first, who discovered a difference between the poison of a primary and a secondary venereal ulcer. He adduces a number of experiments, to prove, that the matter of a gonorrhœa, a chancre, or a bubo, will, by inoculation, produce real primary chancres in any part of the body; even in those already affected with the lues venerea: while that taken from a secondary ulcer, will not, by the same method,

produce a poisonous sore*. And my observations have convinced me, that the strength, activity, or concentrated properties of this poison, are greater before it has undergone a circulation in the blood, than after it has mixed with it: and that on this account it will generally require a larger quantity of mercury, to destroy it in the former case, than in the latter.

Every practitioner knows the great obstinacy of chancres, and how tedious and difficult their cure often is, if topical remedies, as well as mercury used internally, be not employed †. From what I have been able to observe, it appears, that a great majority of recent cases of this kind will shew little or no amendment by an alterative course of mercury only; and now and then a case occurs, which will resist the effects of this remedy for several weeks together; even though the constitution be loaded with large quantities of it, and the mouth in consequence be severely affected. But the case is very different in the treatment of every variety of a secondary disease. I am convinced,

* Treatise on the Venereal Disease, p. 292 and seq.

† Mr. Hunter is of opinion, that chancres are never cured unless by mercury given internally, or other medical assistance. See p. 31 of his Treatise.

that the result of any given number of these cases, in which the same quantity of mercury was used, as would be administered in the same number of chancre cases, would lead to a conclusion, the reverse of what has been just related: a great majority of them would not only show an amendment, but many would, without all doubt, be actually cured by an alterative course of mercury, continued for a proper length of time. In giving this opinion, I beg that I may not be misunderstood: I mean only to assert, that the poison of the lues, in any of its forms, may more frequently be destroyed by mercury, given alteratively, and in small quantities, than the poison of a chancre*.

I shall endeavour to illustrate these ideas, by a few extracts from the writings of Mr. Hunter and Mr. Bell. The former observes, “ That a
“ chancre is in common longer in healing, than
“ most of the local effects from the constituti-
“ onal disease, or lues venerea; at least longer
“ than those in the first order of parts; and
“ this is found to be the case, notwithstanding
“ that the cure of a chancre may be attempted,

* It must be allowed, that some cases of chancres, as well as of the lues, will yield to small alterative doses of mercury alone; while others will require large doses of it; and a considerable affection of the mouth.

“ both constitutionally and locally; while the
 “ lues venerea can, in common, only be cured
 “ constitutionally. It is commonly some time
 “ before a chancre appears to be affected by
 “ the medicine. The circulation shall be loaded
 “ with mercury for three, four, or more weeks,
 “ before a chancre shall begin to separate it’s
 “ discharge from it’s surface, so as to look red,
 “ and show the living surface; but when once
 “ it does change, it’s progress towards healing
 “ is more rapid*.”

Mr. Bell remarks, “ That the internal exhi-
 “ bition of mercury alone, will not always cure
 “ chancres †.” And in another place he says,
 “ I have known a person kept under the com-
 “ plete effects of mercury for many weeks, and
 “ the chancres for which it was prescribed
 “ remain nearly in the same state as at first;
 “ nay, in *different* instances, where this prac-
 “ tice was pursued, and in which the cure was
 “ trusted to mercury alone, although the re-
 “ medy was continued in *all of them for six or*
 “ *seven weeks*, and under the best management,
 “ as the chancres did not heal, the mercury
 “ was laid aside, on the supposition of the con-
 “ stitution being safe; from which, I conclude,

* Treatise on the Venereal Disease, p. 226.

† Bell on the Gonorrhœa, &c. Vol. II. p. 260.

“ that we cannot depend upon the internal use
“ of mercury alone, for the cure of chancres*.”

In corroboration of this reasoning, I shall relate two or three cases, which have fallen under my own observation.

A young man contracted a chancre upon the prepuce, for the cure of which, he repeatedly touched it with a strong solution of the vitriol of copper. By this method he healed the sore; but there remained under the citatrix a very hard lump, of the size of a large pea; owing unquestionably to the insinuation of the venereal poison into the cellular substance of the part. Two months afterwards he applied to me for the cure of this induration, and likewise for venereal eruptions in different parts of the skin, which had appeared since the healing of the chancre. He was immediately put upon a course of mercury, but so mild a one, as to affect his mouth very slightly. The eruptions of the skin were entirely removed in a fortnight; but the lump on the prepuce had undergone no alteration. The same dose of mercury was continued for some time longer, but with no better effect. It was then increased. As his mouth became sorer, the tumour on the prepuce lessened; and

* Bell on the Gonorrhœa, &c. Vol. II. p. 318.

by continuing the same course for about three weeks, it was entirely removed.

A gentleman, having about twelve months before been cured of chancres, applied to me for the cure of venereal eruptions on his forehead, arms, and breast, with an induration on his arm of many months standing. A short time before I saw him, he, through another impure connection, had contracted fresh chancres on different parts of the prepuce. He was immediately put upon a mercurial course, and the chancres were ordered to be washed with water only. In ten days all the old venereal symptoms were nearly removed, though his mouth was not affected in the slightest degree by the mercury: but the chancres were larger and more virulent than before. The quantity of mercury was then increased, and the lues was perfectly cured in a few weeks; but the chancres were not in the least mended. The quantity of mercury was further increased, in order to cure the chancres; but owing to a peculiarity of habit, and to his being obliged daily to be much out of doors, his mouth could not be made sore enough to cure, or even to alter the state of them. They were therefore touched with the nitrated silver, by means of which they

were immediately healed*. On this subject, Mr. Hunter remarks, that "A lues venerea

* The nice treatment of chancres is of great importance. Different practitioners, however, treat them in a very different manner. Some apply rough escharotics to them (both in the form of lotions and ointments) in all the different stages of the disease, and without much regard to the state of active inflammation in the part, or the difference in the irritability of different habits. By so doing, especially at the commencement of the complaint, much serious mischief is often done to the penis, and a mortification is sometimes brought on, which would not have taken place, had the disease been left to itself. Mischief of this kind is also often greatly aggravated by the injudicious administration of mercury, whether given internally, or applied by friction. The treatment of chancres ought to be very simple. In all habits, at their commencement, they should be washed three or four times a day, with warm milk and water only. If they are situated either on the glans or prepuce, and are of a small size, no lint or other dressing should be applied to them; but the glans should be covered by the prepuce, immediately after the ablution. Or if there be a phymosis, the milk and water should be injected between the glans and prepuce. But if the chancres are of a considerable size, it is useful to apply a bit of very thin lint to their surface, covering the glans with the prepuce immediately afterwards; as a large piece of thick lint would irritate by its bulk. If the chancre be on any of the external parts of the penis, or on the glans or prepuce, when from habit or natural formation, the former is not covered by the latter, a plaster of spermaceti ointment, applied on lint, twice a day, is the best dressing.

“ shall, in many cases, be perfectly cured,
“ before chancres have made the least change*.”

In those cases of chancres where the penis is free from inflammation or swelling, mercury should be administered internally or by friction, as soon as possible. But if there be much inflammation, swelling or pain, or a phymosis, or paraphymosis, the penis should be fomented two or three times a day with the common fomentation, or with a decoction of poppy heads, and afterwards enveloped in a warm emollient poultice of bread and milk, with oil or hog's lard, and all use of mercury, either internally or by friction, should be deferred. And if these symptoms prevail to an alarming degree, the patient should be confined to a sofa or bed, and abstain from wine and all heating food, adding the use of gentle purgatives, not of the mercurial kind. When by the above means, these temporary effects of the action of the poison are removed, the patient may commence his mercurial course for the cure of the chancres. As already observed, they will in some cases yield to the alterative effects of this active mineral; in others, to a gentle affection of the mouth; but in others again, the mouth must be severely ulcerated, approaching even to a beginning salivation, before any amendment will take place; and some will resist even a salivation continued for some weeks, as Mr. Bell and others observe.

A practical question arises here, whether in any of these cases, chancres should be treated by escharotics, and if so, at what period of their existence. If chancres on the first or second day of their appearance, be very free from inflammation, they may now and then be cured by a single application of the lunar caustic, or a saturated solution of the sulphate of

* Treatise on the Venereal Disease, p. 227.

Besides this difference between the venereal poison in it's primary and secondary state, it

copper in water, without producing a secondary affection or the lues. In general, however, there is considerable risque of absorption from this method of treatment; which should be followed only when that risque is taken by the patient, and not by the surgeon. When chancres yield to alterative doses of mercury, or to a gentle affection of the mouth, it is evident that the constitution will be perfectly free from any risque of the lues, provided the mercury be continued in the same doses from ten days to a fortnight after they are perfectly healed. All these cases of course require no application of caustic. The main question of importance is, whether chancres, which do not readily yield, or do not yield at all to the larger doses of mercury, so exhibited as to produce a considerable affection of the mouth, according to the description already given, should be treated by escharotics or not. Long experience has convinced me, that it is by far the safest and best practice in these cases, to apply them. But it may be asked, at what period of the complaint, and what kind of escharotic should be used? In answer to the former question, I would say, not until the constitution be properly charged with mercury; and the mouth shews that this mineral is circulated with sufficient activity through every part of the body. When this is effected, and the chancre and parts around it are free from active inflammation, remedies of this kind may be applied with great advantage, and without much pain, if used with judgment. If chancres are perfectly cured by escharotics, at this period, they are not apt to leave siphilitic indurations beneath their surface, nor to produce a bubo, or secondary effects in other parts of the body. Respecting the kind of

appears, that the poison of a chancre, or of a bubo, becomes weaker, by long continuance in

escharotic, there are two which are much to be preferred to all others; the nitrated silver, and a saturated solution of sulphate of copper in water. Both are extremely valuable and powerful, and it is not often that either of them fail in healing chancres in a short time, at any period of their existence. In general I prefer the solution of copper, as giving less pain, and being more readily diluted, so as to be adapted to very irritable habits; but both require some difference in the mode of application. If the chancre be in a very indolent state, which may always be known by touching its surface with a probe, or a bit of lint, or even by its appearance; the saturated solution of the sulphate of copper may be applied undiluted, by dropping a little of it upon the part, or slightly touching it with a bit of soft lint or rag. The prepuce should then be immediately drawn over the glans, if the chancre be on these parts, without the intervention of any lint, or other substance; as these would imbibe or retain too much of the solution, and thereby occasion unnecessary pain. But if the chancre be on any of the external parts, a spermaceti plaster upon lint should be applied over the solution. A single application of this preparation will, in many cases, heal a chancre in a very few days, without giving any pain at all. If this does not take place, it should be repeated in the same manner every day, every other day, or in some cases seldomer, until this effect is produced. Where there is great irritability of habit, or in the chancre, much caution is required in adapting the strength of the solution to these states. In some of these cases it may be diluted with six or eight times its quantity of water, or till it gives no pain; increasing by degrees the strength of the solution, as

the affected parts. The following case may serve for an illustration of this idea:—A young

the state of the parts may bear, until the cure is effected. It rarely happens that the solution of sulphate of copper, applied in the manner here described, fails of curing a chancre; should that however be the case, we must have recourse to the lunar caustic, which should be applied with the same care not to occasion pain, as in using the solution of sulphate of copper. In those habits where there is no particular irritability in the sore, or where the parts are free from inflammation, the chancre may be touched with the nitrate of silver in its pure state;—but in this case, a bit of thin lint should be immediately applied on the part before the prepuce is drawn forward, where the chancre is in this part, otherwise the opposite skin will be excoriated, which does not happen in applying the solution of copper. In repeating the application of the nitrate of silver, nearly the same rules must be observed, as for the solution of sulphate of copper. It should, however, not be applied so frequently; once or twice a week will often be sufficient. Where the sore is very irritable, this caustic may also be applied diluted in water to any degree of strength. After chancres are cured by either of these methods, the mercurial course should be continued for some time afterwards in the same regular manner, as if they had been cured without these applications. The great advantages in using them, are the shortening the mercurial course, and healing troublesome sores. Particular care should be taken in all these cases, that no induration be left behind.

In weak, irritable, or, scrophulous habits. It is often useful to administer bark or sarsaparilla, or both, during the use of mercury, and to wash the chancres two or three

man contracted a chancre. It was succeeded by a bubo, which suppurated. Mercury was employed in large quantities, both internally, and by frictions, for the cure of these complaints; but it was one of those untoward cases, in which the usual doses have no effect, either on the disease, or the mouth. It's effects were indeed considerably lessened, by his being obliged to be much in the open air. After a continuance of this plan for many weeks, without the least amendment, he was attacked with a bubo in the other groin; which, as he had no chancres on this side of the penis, probably arose from dormant poison, either in the penis, or in the lymphatic gland. This also suppurated. The quantity of mercury was increased, by which his mouth became extremely sore, attended with a large flow of saliva, which confined him to his bed. The chancre and the first bubo healed immediately after these effects took place; but neither was the second bubo at all mended by it, nor did it's virus seem to become less active; for some

times a day with a very weak mixture of one grain of sulphate of zinc, and the same quantity of prepared calamine, and superacetate of lead, to one ounce of water; this application generally agrees better than greasy ointments of any kind.

of it having run along the perinæum upon the buttocks, and remaining upon these parts for several days, merely through neglect, it soon produced fresh chancres upon them, of a very virulent and obstinate kind.

From what has been advanced, there is reason to conclude, that the virus of a chancre, though partaking of the same specific property, yet, nevertheless, differs considerably in it's quality from that of an ulcer from a secondary infection. Hence we infer, that the poison of a bubo is nearly of the same kind as that of a chancre; inasmuch, as being mixed only with a small quantity of lymph in it's passage to the gland, it has not undergone the same change, which it does from a long circulation, and a subsequent deposition from the blood: and experience confirms the truth of this remark; buboes being known to be generally obstinate and difficult of cure; and when they take place in a person afflicted with chancres, they require the same quantity of mercury, and the same degree of the affection of the mouth, as are necessary to cure the chancres.

If this difference in the degree of virulence exist, between the poison of a chancre or a bubo, and that of the lues, we may safely conclude, that it exists also between the poison of the gonorrhœa virulenta, and the lues. I shall

not, therefore, take up my reader's time, in endeavouring to prove this; for if the truth of the former be established, the latter must likewise follow; if it be granted, that the poison of a gonorrhœa, and that of a chancre, are the same. From these elucidations of the nature, seat, and properties, of the gonorrhœal poison, we proceed to the method of treating this complaint.

CHAPTER IV.

OF THE TREATMENT OF THE GONORRHŒA
VIRULENTA IN MEN.

FROM what has been advanced in the preceding pages, it may be supposed, that the cure of the gonorrhœa virulenta would be found to be simple and easy; that as mercury, exhibited internally in a proper manner, or used in frictions, is known almost always to cure a chancre or a bubo, it would, if exhibited in a like manner, cure every species of this disease. But in such an expectation we shall be disappointed; for though mercury, thus introduced into the circulation, will be found, in certain cases, to have a very considerable effect towards removing the disease, yet it will seldom entirely eradicate it, without the assistance of other remedies.

I shall divide this disease into three different species.

First, The gonorrhœa attended with ulcer in the urethra, or with a considerable induration of the lips of it's orifice, and of a portion of the corpus spongiosum adjoining, but without any apparent ulcer. These appearances being for the most part attended with a chordee, and ardor urinæ, to a greater or less degree.

Secondly, The gonorrhœa attended with a chordee and ardor urinæ, with other marks of a considerable inflammatory affection of the urethra and penis, but without any appearance of ulcer, or great induration of the lips of the orifice of the urethra, or of the corpus spongiosum.

Thirdly, The gonorrhœa unattended with any of these circumstances; its chief symptom being a small purulent discharge from the urethra.

Whenever ulcers or chancres take place in the urethra in the first species, whether they be large or small, or with or without a surrounding hardness, or whenever a considerable induration is met with in the substance of the corpus spongiosum, near the extremity of the urethra, even though it be not attended with apparent chancres, all practitioners agree in the propriety of curing them by mercury, exhibited internally, in the same manner as if the complaints were situate in any of the external parts of the penis.

In all gonorrhœas of the second species, we have reason to conclude, from the observations already made*, that the poison has penetrated into, and excoriated the inner membrane of the

* Chap. II. p. 15, and seq.

urethra to some depth, though it may not have produced actual ulcers in it. If in these cases mercury be exhibited internally, or in frictions, in proper doses, it will now and then make a perfect cure of the disease, in a very short time. In general, however, it must be confessed, that mercury, thus given, will not effect a complete cure. But I can confidently assert, that it will, in almost every case, remove the chordee, and ardor urinæ. It will likewise, in a very considerable degree, lessen the quantity of the usual discharge; and alter it's colour and consistence from a deep yellow or greenish thin pus, to that of a light or whitish yellow of a thicker consistency*.

The exhibition of mercury for the cure of chancres, in the first species of the disease, will also alleviate all the other symptoms attending

* While the author was preparing these sheets, for the second edition, the following case came under his observation. A young man contracted a very virulent gonorrhœa, of the first species, attended with a considerable induration of the lips of the orifice of the urethra. The chordee, ardor urinæ, and discharge, were very considerable. The disease had remained in this state for several weeks, without any abatement of the symptoms; although he had frequently taken purgatives, and had abstained almost entirely from animal food, and every kind of heating liquor. His nights were restless and uneasy, from the pain of the chordee, and ardor

that species, to the same degree, as when it is exhibited for the removal of these affections in the second species.

urinæ, and he was pale and much emaciated. I ordered him to rub two drams of the strong mercurial ointment upon the thighs, and to notice it's effect. The whole was rubbed in on one evening;—its effect in correcting the virulence of the poison, was so quick, that he felt some abatement of the pain before the morning. On the following night he rubbed in the same quantity, and rested much better, having had a considerable abatement of the ardor urinæ, and chordee: the discharge also lessened, and became thicker; he rubbed in the same quantity on the third night, which produced such a further abatement of all these symptoms, as left him almost free from pain. During these days he eat meat, and used exercise as before; but he did not take his accustomed doses of salts. The effect of the mercury on his gums was scarcely perceptible. He now suspended the mercurial frictions, from a whimsical idea, that he might sustain some injury by their repetition; although he had received the benefit I have described, unaccompanied with any disagreeable effect, either on the bowels or the mouth. A few days after this, he was seized with a swelling in one of his testes, without being able to assign any cause for it. For this complaint he was bled from the arm; leeches were applied to the part; and all the other remedies recommended for this complaint in this essay, were used, by which the swelling was soon removed, and he went abroad as usual. It is proper to remark, that during the continuance of the hernia humoralis, the slight remains of the chordee, and ardor urinæ, with the discharge, entirely left him; but upon his recovery, all those symptoms returned, though in a much

It has been already observed, that a majority out of any given number of cases of chancres, treated only by mercury given internally, would require an affection of the mouth to be produced by it, before the sores would yield to this method of treatment. It is exactly the same in the second species of gonorrhœa: yet it is impossible, to fix the precise quantity of mercury, which ought to be used for each individual; or the degree of affection, which should be produced by it on the mouth, in order to accomplish it's design. These must vary considerably in different habits, and in different cases. In some few instances indeed, this gonorrhœa will be benefited to the same extent, by alterative doses of mercury, as when an affection of the mouth is produced by it: an effect, similar to what has been already mentioned, concerning the power of this remedy in the cure of some chancres. From these circumstances, it will be found in practice, that nearly an equal number of all

less degree than before. At this period, he again resumed the mercurial frictions, without using any other remedy, and without being confined to the house: in a very few days, all these symptoms became again very much lessened, and he appeared to be in a fair way of being perfectly cured. An accidental circumstance, however, removed him from under my inspection, and I am not acquainted with the result.

these gonorrhœas will, in their symptoms, yield to mercury, in the manner already described, with as much certainty, as may be expected in a like number of cases of chancres.

From this statement it appears, that, if we be to expect good effects from mercury in these gonorrhœas, we must give it in the same manner, and in the same doses, as would be necessary to cure recent chancres. It is chiefly from a want of attention to these circumstances, that so much difference of opinion has arisen, with respect to the action of mercury in this disease. The best and most certain way of judging of the quantity of mercury necessary to be used, is by the effect produced on the disease. In the greater number of all these cases, we must bring on that general soreness of the mouth, which proves, beyond a doubt, that the mercurial stimulus pervades every part of the body. As soon as this is done, the chordee and ardor urinæ begin to go off; and if the mercury be continued for a few days only, in such quantity, as to produce the same effect, these painful affections will be nearly removed. As these symptoms decline, the inflammation and tension of the glans, and along the urethra, likewise lessen, and the discharge for the most part abates, and becomes thicker and whiter, as was before observed. In order, however, to procure all the benefit, which

may be derived from mercury, in this complaint, it will be often necessary, to administer it in this manner for ten days or a fortnight, or, in some cases, a little longer. When it happens in any particular case, that a gonorrhœa resists the effects of mercury for a time, and the symptoms are not even alleviated by it, we may easily explain this occurrence, by adverting to the same circumstance in the treatment of some chancres.

To those who have frequent opportunities of seeing the venereal disease, it is altogether unnecessary, to give any description of the proper affection of the mouth by mercury; but lest some should be misled by what has been advanced, for want of such a description, I shall just observe, that where this effect takes place, in a manner to be depended upon, the gums, both of the upper and lower jaw, swell, become tender to the touch, and ulcerate or decay from the teeth. All around the mouth, from each lip to the last of the grinders, the membrane of the mouth is more or less blistered, in places opposite to the teeth and the affected parts of the gums. The sides of the tongue, opposite to the inside of the teeth, are likewise blistered in the same manner.

These appearances are accompanied with more or less of fulness or swelling in the cheeks and

salivary glands; and also with a peculiar fœtor, and a flow of saliva, varying in quantity, according to the degree of the affection of the mouth, and the state of the habit. When these affections take place, mercury almost always destroys the venereal poison, whatever be the form in which it appears. This happens at least during the continuance of such an affection of the mouth; but it is one of the nicest points of practice in the management of mercury, to produce and keep up an affection of this kind, without carrying it to the unnecessary height of a full salivation. It can be done only by the daily and cautious introduction of uniform doses of mercury, increased or lessened, in proportion to the effect on the mouth; due attention being likewise paid to the concomitant circumstances. As soon as the effects described begin to take place, the doses should be lessened, or omitted for a day or two; in order to avoid a too sudden or too violent affection of the mouth. In all cases, whether of the gonorrhœa or lues, where it is necessary to use mercury beyond its alterative powers, we must be careful, not to trust to the mere report of the patient, but attentively inspect the mouth itself. It sometimes happens, that a trifling and even almost imperceptible affection of the gums, particularly just within the incisors, without any blistering of the

mouth, is nearly as painful as that degree of affection of the mouth which I have just described: but upon this no dependance whatever can be placed, with respect to the destruction of the venereal poison. Sometimes too the mouth will be blistered partially on one or both sides, and particularly opposite to the *dentes sapientiæ*, without being accompanied with the proper affection of the gums.

It does not seem necessary, to take up the reader's time on the subject of the different preparations of mercury, which are given internally. The introduction of this remedy into the circulation is now more than at any former time confined to the method by inunction; and, were it always convenient to the patient, I should, in most cases, prefer it, inasmuch as the stomach and bowels are much less disordered by it, than by any other. But as there are some, who, from the nature of their engagements, cannot use the ointment; others, who will not; and others again, in whom it is necessary, to give effect to it by the internal use of mercury; I shall just observe, that the preparations, which I have preferred, are calomel, the quicksilver pill, and calcined quicksilver, either with or without opium, as the case requires.

Experience has long convinced me, that mercury so administered, as to produce the effects

on the mouth above described, will be attended with all the good consequences I have mentioned, in all those cases of the gonorrhœa of the second species, which do not yield to it's alterative effects*. I am aware indeed, that I may not have the profession universally agreeing with me in this opinion; I can, however, produce some respectable authorities in it's behalf.

* I have almost invariably observed that mercury, given in the manner here recommended, has produced these effects. If, however, we reflect for a moment, we shall easily account for the chordee and ardor urinæ not being always completely removed, so quickly as has been mentioned. In the chordee for example, there is an extravasation of coagulable lymph into the cells of the corpus spongiosum, and according to Mr. Hunter, some of these cells are united together by adhesions. It must therefore be evident, that though mercury given internally may quickly destroy the greater part of the poison on the surface of the urethra, and as quickly remove the inflammation excited by it, yet a proper time must be allowed for the absorption of the coagulable lymph, and for the complete removal of the effects produced by the union of the cells. Moreover, as a very little alteration in the structure of this part may produce a slight degree of chordee, we need not be surprised, if some remains of it continue in a few instances for some time after mercury has acted in the most favourable manner. It may also be easily understood, why in some cases, a slight degree of ardor urinæ should remain after the best possible effect of mercury. I have acknowledged, that some discharge almost always remains after it's use; of course some inflammation must still exist on the inner membrane of the urethra: and as the urine

Our famous Sydenham observes on this subject, "That though a salivation is not able to conquer a gonorrhœa, but having been in some measure conquered by it, it is ordinarily cured with less trouble*."

Astruc advises external frictions of mercury in the gonorrhœa, and calls it, "both an *effectual* and convenient method †." Again; "Although it has been observed more than once, that by the administration of the unction, the gonorrhœa has been *perfectly cured*, as well as *the other symptoms*, yet this is not constantly the case; and it frequently happens, that after a regular and well managed unction,

must pass over this inflamed surface at each evacuation, we need not wonder, that it will produce in some cases a sensation of slight pain, especially as the salts contained in it may vary in quantity in different cases, and at different times, even in the same patient.

We must be careful, not to mistake an inflammation of the neck of the bladder, or of the bladder itself, for the scalding which accompanies a gonorrhœa; the pain in the former is more generally felt at the point of the urethra. The discharge likewise in some cases may not lessen so much as it generally does after the action of mercury administered internally, which may be owing to an inflammation in the urethra, excited by some indisposition of the habit.

* Swan's Sydenham, p. 361.

† Quarto edition, translated 1754. 1st part, p. 267.

“ the gonorrhœa has discharged in the same
“ quantities as before, though it has been no
“ longer virulent*.”

Dr. Robinson, who published a treatise on this disease in 1736, remarks, “ Amongst all the
“ remedies so mightily extolled by authors, I
“ know none preferable to mercurius dulcis, or
“ it’s offspring calomel. Under good manage-
“ ment, I take them to be the most *sovereign*
“ *remedies* yet discovered in the cure of this
“ branch of the venereal disease. I have known
“ three or four doses given, to twelve grains in a
“ dose, with the Epsom waters alternis diebus,
“ carry off the first degree of a virulent gonor-
“ rhœa, with *all it’s concomitants*, in the *compass*
“ *of nine days*; it is impossible to conceive, how
“ this innocent remedy *corrects the venom*, cools
“ the passage, and relieves the *heat and smart*
“ *of urine*†.”

Dr. Turner, in his Syphilis, observes, in treat-
ing of the cure of chancres—“ But if they still
“ happen to improve in their virulence, or
“ grow more spreading and corrosive, there is
“ no better way of making a revulsion, than by
“ exhibiting eight, nine, or ten grains of tur-
“ peth mineral, according to the age, &c. and

* Quarto edition, translated 1754. 2nd part, p. 57.

† Treatise on the Venereal Disease, p. 114.

“ to repeat the same, if necessary, at two or
 “ three days distance for twice or thrice, by
 “ which you will find the chancre not only to
 “ abate of it’s fretful nature, and grow more
 “ mild and manageable, but the symptoms of
 “ *pain, chordee, and priapism* if attending, will
 “ *quickly go off*. The *stillicidium* from the
 “ penis will be *lessened*, and it’s *malignity* also
 “ *subdued**.” All this was evidently performed
 by the action of the mercury absorbed into the
 blood, and not by the mere act of revulsion.
 The same author afterwards gives an account of
 many patients, who were *cured* of the gonorrhœa
in a week or ten days, by taking drops
 compounded of the muriated quicksilver and
 rectified spirit of wine. This medicine generally
 operated with great violence, sometimes produ-
 cing a salivation, at other times a temporary
 flow of saliva for an hour or two. It’s operation
 was likewise generally accompanied with severe
 retchings†.

Chapman, who, in his translation of Astruc,
 intersperses observations of his own, makes the
 following remarks, after having given excellent
 directions for the cure of the gonorrhœa—
 “ *Mercury will take off the ardor urinæ and*

* Turner’s Syphilis, p. 83.

† Ibid. p. 99.

“ *chordee*, when they *cannot* be removed by
 “ *any other remedy*, neither by *bleeding*, *pur-*
 “ *gatives*, nor *low living**.”

The late Sir Wm. Fordyce recommended, after a course of purging, mercurial inunctions in the gonorrhœa. It was his opinion, that they should always be used previous to injections, in order to provide against the ill consequences of the disease. His words are—“ In using mercurial ointment rubbed in, the discharge in a gonorrhœa generally turns from a green and yellow colour, to one whiter, and diminishes also in quantity†.”

Heister, in his Surgery, remarks—“ In *curing* a gonorrhœa, you also cure buboes generally at “ the same time, and *by the same means*‡.”—The same author, in another work, says, by giving his polychrest pill, in which was about seven grains of calomel, every other day, with tincture of antimony, in sassafras tea, *most* gonorrhœas were *cured* in *fourteen or fifteen days*§.

Dr. Swediaur likewise observes, “ That there “ are some gonorrhœas, which cannot be cured “ without mercury||.”

* Chapman's Treatise, vol. I. p. 43.

† Fordyce's Review on the Venereal Disease, 1768.

‡ Heister's Surgery translated, p. 227.

§ Heister's Cases and Observations, p. 82.

|| Treatise on the Venereal Disease, p. 32.

To these testimonies let me add that of Dr. Alex. Monro, from whose lectures I copied the following observations—“ We have reason to believe, that in the gonorrhœa, mercury is one of the *most powerful* antiphlogistics; and though the pulse is quickened by its use, the inflammation is diminished.”

Since this essay was first written, I have met with a more recent confirmation of the doctrine here advanced. In Dr. Beddoes's contributions to medical knowledge, there is a paper of Mr. Addington's, on the cure of the gonorrhœa, by a few doses of one grain and a half of muriated quicksilver, dissolved in half an ounce of rectified spirit of wine, taken alternately with doses of Glauber's salts. This medicine, which generally occasions a sudden and temporary salivation, seldom fails of alleviating all the symptoms of the disease, in the course of twenty-four hours; and by persevering in it's use for a week or ten days, many hundred patients are said to have been cured by it: no symptoms of the disease being left, excepting that in many instances a gleet or discharge has remained. I have no doubt of the truth of this statement; but, I am rather surprised, that they who administered this remedy, did not likewise try the effects of large and powerful doses of the milder and safer preparations of mercury. The relief, obtained in

the cases related, was in my opinion, entirely owing to the absorption of large doses of this preparation of mercury into the circulation, and it's immediate action on the venereal virus. If a person under this disease be desirous of a speedy cure, let him rub in a large quantity of mercurial ointment upon the thighs; or take internally large and repeated doses, either of calomel, or any other mercurial preparation, so as to introduce into the circulation a quantity of active mercury, equal to that which existed in the sublimate used in the cases abovementioned: in short, let him only excite a sufficient degree of mercurial action in the habit, and, as I have in many instances seen, the same benefit will accrue in as short a space of time. If then it be the mercury, that after all, effects the cure, the milder preparations of this article are on many accounts to be preferred. That made use of in the instance abovementioned is not of this class. Some robust people may venture to take a grain and a half of sublimate at a dose, especially if it's corrosive power be weakened by it's being dissolved in rectified spirit; but such a dose would, in many cases, produce very disagreeable and even alarming effects.

But although mercury, exhibited in the manner already mentioned, will generally remove all the violent symptoms of the worst and most

inflammatory gonorrhœas in the course of ten days or a fortnight, and oftentimes much earlier; and though it may be sometimes proper, to recommend the use of it in such cases, in preference to any other plan of treatment; yet this remedy ought not to be administered, without previously inquiring whether there be any temporary objections to it's use. As, for example, whether there be an inflammatory phimosis, or a paraphimosis, or any other violent inflammation in the parts near the seat of the disease. Inquiry should be made likewise, whether there be not too much general inflammatory diathesis in the habit. In such cases it will be proper, to let blood, to empty the bowels, and to put the patient upon an antiphlogistic plan of living, except where the inflammation is purely erysipelatous, and tending to gangrene. Emollient fomentations and poultices should also be applied to the parts, and continued till these complaints are removed, or at least considerably abated*. In all these affections, mercury is well known to be particularly unfavourable, and sometimes even dangerous, during their continuance.

After mercury has produced all it's good effects on this species of the gonorrhœa, a

* It is almost needless to remark, that there are some cases of paraphimosis, where the operation for that complaint ought to be performed.

purulent yellowish discharge, (sometimes improperly called a gleet,) will, as has been before hinted, generally, though not always remain. This discharge occurs in very different quantities in different cases. Where the habit is robust and healthy, I have often observed it to be very trifling; but where it is relaxed, and of a scrofulous tendency, it is often greater. In these cases, there is certainly an inflammation in the urethra, added to that excited by the poison. This may be exemplified by that spreading inflammation and secretion from the skin, which sometimes takes place after the application of a blister upon any part of the body, where there is a predisposition to such inflammation in the habit. I have observed likewise, that either an inflammation of this kind, or else an extension of the specific inflammation, takes place in some virulent gonorrhœas after the disuse of mercury; as it sometimes happens, that the discharge from the urethra will increase very soon after the mercury is left off, if proper remedies be not used to prevent it.

It is very remarkable, that although the discharge remaining after the use of mercury in a gonorrhœa, is of the same nature, and as highly infectious as that which flowed previous to the use of mercury, yet a longer continuance of the

mercurial course will not remove it. We are not, however, to conclude from this, that the mercury has failed of destroying all the poison within the reach of it's circulation. How are we then to account for such a discharge still remaining? Perhaps, we may say, that a portion of the poison still occupies the urethra, but so superficially, as not to be acted upon by the mercury. Whether this be a satisfactory explanation of the fact or not, I will not determine; I must confess, that my attention has been often engaged in endeavours, to explain this singular occurrence in a more satisfactory manner, but I have not been able to do it. As every part of the inner membrane of the urethra is very vascular, and as mercury ought to pervade in a like manner every vascular part of the body, and thereby destroy venereal poison of the same degree of concentricity in one part of the body, as effectually as in another, I must own, that I cannot assign any sufficient reason, why it should not always cure a virulent gonorrhœa, with as much certainty as it does a chancre. Sometimes indeed, as has been before observed, it performs a perfect cure; but in the greater number of cases, though it will nearly effect a cure, it fails in completing it. Though the poison in all gonorrhœas insinuates itself within the numerous lacunæ of the urethra, from which

circumstance it becomes more difficult to be expelled by topical applications; yet its situation in these parts ought not to prevent mercury, when given internally, from acting upon it, since the membrane of these lacunæ is as vascular as any other part of the urethra. However, till a better explanation of this mysterious fact can be given, I shall adopt the one already mentioned; leaving it to others, to explain it in a less exceptionable manner. Thus much I may confidently assert, that in whatever manner this is done, it probably cannot lead to a more safe, certain, or speedy method of eradicating totally this remaining discharge, than the treatment, which will be found detailed in the following pages, and which was adopted in consequence of the explanation above given. And the cure confirms the opinion, that this remaining discharge is venereal, for it may with certainty be removed by mercurial injections, acting as a topical specific upon it, although injections of any other kind are seldom endued with this power.

When a gonorrhœa of the first or second species is brought into the state here described, by the exhibition of mercury internally, the urethra appears to be affected by the poison nearly in a similar manner to what it is in the

third species of this disease, which I shall next describe more fully*.

It is no uncommon thing to meet with recent gonorrhœas, where neither chordee, nor ardor urinæ, nor any inconvenience, excepting sometimes an uneasy prickling in the urethra, or a slight sensation of pain in making water, appears to arise from the complaint. It is simply a daily discharge of a *yellowish purulent* matter, accompanied for the most part with more or less redness upon the glans penis, near the orifice of the urethra, but without the inflammatory tension, which attends the commencement of the gonorrhœa of the second species. This discharge varies in quantity in different cases: sometimes it is rather copious; now and then it is so trifling, that it can only be discovered in a morning, before the urine is passed, by pressing the end of the urethra, and no discharge whatever can be discerned, even by a trial of this kind, through the day. In other cases, in addition to the discharge in the morning, a few yellow spots may be seen on the linen, or a small quantity of matter may, at any time, be

* The third species of the gonorrhœa is most frequently met with in persons who have had the disease repeatedly. This opinion is supported by the judgment of Mr. Hunter; who observes, that the first gonorrhœa is generally the worst.

pressed out of the urethra. In either of these cases, if the prepuce do not naturally cover the glans, the orifice of the urethra is often closed or gummed up; this happens from the drying of the gonorrhœal virus, which issues from it.

Whenever any of these appearances take place, and continue after an impure connection, in a patient who was before perfectly free from any similar affection, we may conclude, that they are produced by the venereal virus acting superficially on the inner membrane of the urethra; and that the disease is as highly infectious, as if the parts were violently inflamed, and the matter secreted in large quantities. Experience shews us, that it is very difficult, to cure a gonorrhœa of this kind by any other remedy than a mercurial injection; for mercury given internally has, in general, no effect whatever upon it, but is hurtful, and retards the cure. As therefore the state of the urethra in this gonorrhœa is nearly similar to what it is in the first and second species of this disease, after a previous treatment by mercury administered internally; and as it has been observed, that the discharge remaining in these gonorrhœas should likewise be cured by mercurial injections; I shall treat of their cure under one head.

CHAPTER V.

OF THE FINAL CURE OF THE GONORRHŒA
OF THE FIRST AND SECOND SPECIES, AND
OF THE CURE OF THE GONORRHŒA OF
THE THIRD SPECIES, BY INJECTIONS.

FROM the remarks already made, it appears, that mercurial injections are to be preferred to any other remedy for the cure of the complaints in question: indeed I know of no other remedy, upon which we can depend in such cases. These injections will, in general, answer all our expectations; but it should be recollected, that they are to be used with great judgment and nicety; and that in different persons, even though the state of the disease, and the habit of body, appear to be the same, the quantity of mercurial stimulus requisite for the cure must often be different: it being necessary, to adjust the strength of the injection to the irritability of the habit. In short, we must use mercurial injections upon the same plan, which we adopt in the use of mercury internally, for the cure of a chancre or the lues; in the cure of which, no one can venture to name any determinate quantity, that will suit every case and every habit.

In these, the best and safest plan is to begin with gentle doses, and gradually increase their strength, till they produce their desired effects: and when we reflect how very irritable the urethra is, and how nearly it is connected with parts of great importance, we must immediately see, that it is highly necessary, to attend to the same rule in the management of injections.

Experience has long convinced me, that it is best to confine our practice to two or three preparations of mercury, as the basis of injections. Those, which I have used, have been the muriated quicksilver, or corrosive sublimate, and calomel; of these, I think the former the neatest, and by far the best; as an equally strong solution of it can always be applied to every part of the urethra affected by the disease. The calomel will frequently answer our wishes very well; but I have for some years past almost confined myself to the muriated quicksilver, because, calomel being an indissoluble powder, it is not easy to diffuse it so equally, that it shall be applied uniformly to the urethra. And as some of it lodges in the canal, and is afterwards discharged, it is sometimes difficult to know, when the last particle of the venereal discharge is gone. In using a solution of muriated quicksilver in water, as an injection, I have generally first dissolved it in rectified

spirit of wine; in the proportion of one drachm of the muriated quicksilver, to an ounce of the spirit*. By nice management in dropping, or by measurement, this solution may be afterwards diluted with more convenience, and perhaps with more nicety, and less danger of mistake. (especially in mixing small quantities) than by weighing the muriated quicksilver; and a very diluted solution of spirit of wine, applied to the lax, inflamed, and secreting surface of the urethra, tends to heal it, when the poison is destroyed; though it by no means acts as an astringent.

For the reasons already assigned, I always begin the injection, in all these different species of the gonorrhœa, with two drops of the above solution to four ounces of rain or distilled water; directing it to be used thrice a day only for the first week, and afterwards four or five times a day: this injection, which, for reasons that will hereafter appear, I shall distinguish by the title of number I. will, in almost every case, produce an immediate amendment. It will abate the inflammation, lessen the discharge, and if there

* If the muriated quicksilver be pulverized, it readily dissolves in rectified spirit of wine in the proportion here related, either by shaking them together for some time, or by exposing them to a gentle heat.

be any trifling degree of ardor urinæ, or chordee, it will very generally remove these symptoms in a short time. In a few cases, even so weak an injection as this will occasion some degree of pain, especially on first using it; but in general no such effect follows; and in slight gonorrhœas of the third species, I have repeatedly seen this injection remove the discharge in one day, and by continuing it a few days or a week, a complete cure has been effected. As this injection will likewise be found to cure a considerable number of the first and second species of gonorrhœa, I would by no means advise, that it be too soon changed for one still stronger. The irritability of the urethra is so different in different men, and so much mischief may arise from strong injections, that I deem it the safest practice, to use the mild injection above specified, as long as any benefit is derived from it, or in other words, as long as the disease daily decreases by it's use. If by thus using this injection the discharge be entirely removed, and the patient appear to be perfectly well, it is absolutely necessary, to continue it in the same regular manner as before; or at least three or four times a day, for a fortnight, and in some cases even for a month, after the yellow running has entirely ceased. If this precaution be not taken, the disease will probably return.

In endeavouring to ascertain whether the discharge be totally removed, we must be very particular in our inquiries. If we depend upon the patient's account, or even upon a common examination of the urethra, and the linen, we shall be very liable to be deceived, and be led to believe, that the disease is totally removed, when it is not. It will sometimes happen, before the disease is eradicated, that no discharge from the urethra takes place in the day time, none is found upon the linen, nor even by squeezing the end of the penis at some periods of the day; but if this trial be made in the morning, before the patient has made his first urine, a particle of pus, not larger perhaps in some cases than a pin's head, may be squeezed from within two inches of the extremity of the urethra, but more generally from the part still nearer it's orifice. Some of this discharge is without doubt secreted during the night, from an affected portion of the inner membrane of the urethra. Still more of it, however, probably comes from some of the lacunæ*. In these

* Mr. Hunter observes, that where he has had an opportunity of examining the urethra of persons who have died while affected with a gonorrhœa, he has always found the lacunæ loaded with matter, and more visible than in their natural state.

cases, the matter is collected during the night; the activity of the poison being renewed, partly in consequence of discontinuing the injection, and partly from the urethra not being so frequently washed by the urine during the night, as in the day. In other cases, a small portion of pus may be squeezed out of the urethra at any time of the day; whenever this happens, a few yellow specks may, by close inspection, be found upon the linen. I express myself thus particularly, because the existence of the morbid matter in these cases cannot be detected, without an attention to minute circumstances. And it should be recollected, that while a particle of yellow discharge remains, a particle of the venereal poison is still acting on the urethra, which, if the remedy be discontinued, will soon increase in quantity.

But we must be careful, not to mistake the glairy pellucid mucus of the urethra for pus. It often happens, that the linen is spotted by this glaire, and it may now and then be squeezed from the urethra; but its appearance is altogether different from that of pus. To the eye it is transparent; and the linen, when marked with it, is merely stiffened; no more colour being on the part, than there would be if the white of an egg, or gum water, had fallen upon it. The appearance of the stain of pus is very

different. Pus from the urethra, like that from a wound or other diseased surface, may be of a whitish, of a cream, or a deep yellow, or green colour; it may be of a thick or thin consistence; according to the degree and kind of inflammation in the secreting vessels, and to the time the pus has lodged in the part after being secreted. In all these cases, however, it always has colour, and gives colour to the linen*.

In directing our inquiries, in order to ascertain with certainty, whether the gonorrhœa be totally removed or not, we must not permit the patient to irritate the urethra, by squeezing or pressing it unnecessarily; a practice to which many are addicted, from an anxiety to be informed of the state of their complaint. Many gonorrhœas are hereby made worse; the inflammation being kept up longer than it would be, were the part not disturbed. While there are any yellow spots on the linen, we have proof enough, that the disease is not removed; he therefore need not squeeze the orifice of the urethra, to ascertain

* I shall not here enter into nice distinctions between pus and mucus. Many ingenious observations on this subject may be found in a dissertation, written by my late valuable friend Mr. Charles Darwin. Nor shall I attempt to prove, that real pus may be secreted merely from an inflamed surface: this circumstance is now, I believe, generally acknowledged.

this. But we must risque the inconvenience of squeezing the part, when the proofs are not visible. When the discharge appears to be totally gone, and we have reason to believe, that the disease is removed; it may be adviseable for the patient to make the following trial, twice a week, before voiding his urine in a morning; let him gently press the urethra forward with the finger and thumb from about two inches of it's orifice, in order to ascertain, whether there be a particle of yellow matter lodged in it or not. By this examination we may determine, how long the injection should be continued.

If after using the injection, denominated number I. a week or ten days, it appear certain, that the disease has not decreased for the last three or four days, it will then be adviseable, to administer a stronger one: if number I. be too weak, to produce the effect desired, we lose time by continuing the use of it. For a stronger injection, let four drops of the solution be added to four ounces of water, to be used four or five times a day*. This injection (which

* I have repeatedly tried, whether it be most advantageous, to use injections twice—four or five times—or six or seven times a day. I have cured many gonorrhœas by directing them to be employed only twice a day. I am

I shall call number II.) will almost always lessen the remaining discharge, and produce a real amendment immediately upon using it; and by persevering in it's use, a considerable number of those cases, which would not yield to the first injection, will be perfectly cured in a short time. But if after using this injection a few days or a week, the discharge be not entirely removed, or be not perceived every day to lessen, we may proceed to the use of an injection I shall call number III. which consists of six drops of the solution to four ounces of water. This, like the former, will be found to make a perfect cure of many gonorrhœas, which would not yield to the preceding mixture. But if, after this, the discharge have not utterly ceased, we may order the injection of the next degree of strength, namely; that with eight drops of the solution to four ounces of water, which I call number IV. Having arrived at an injection of this strength, we must be extremely cautious, how we proceed to a farther increase. From the observations which I have made, I am

convinced, however, that it is much better, to use them four or five times a day, and that it is altogether unnecessary, to employ them oftener. They should be used as early in a morning as possible, and as late in the evening as can be made convenient, and each time after making water.

well assured, that more than three fourths of the complaints in question will be perfectly cured, by persevering in one or the other of these injections, upon the plan here recommended. But I would remark, that in very irritable habits, on the application of an injection of increased strength, a little pain will sometimes be felt for the first two or three days, on making water. The discharge likewise, instead of being lessened, will now and then be increased. But this effect, as well as the other, generally goes off in two or three days.

If, however, upon a fair trial of the last injection, we find, that some yellow discharge still remains, we may use it still stronger, putting ten drops of the solution into the same quantity of water; this I shall call number V. In the same manner we may proceed, (advancing cautiously indeed) to increase the strength of the injection, by the addition of two drops to the same quantity of water, whenever an augmentation of it's power is obviously necessary. In some rare instances we may go on in this progression, till the injection is of double the strength of that last mentioned: this mixture of course is denominated number X*.

* The method of dropping any medicine is liable to a little uncertainty from a difference in the size of drops; but

If calomel be used as the basis of the injection, it should be in small quantities at first, and, afterwards gradually increased, as circumstances dictate. This preparation, although not so liable to give pain as the muriated quicksilver, will, in some cases, considerably irritate the urethra, and bring on an inflammation, either of the testicle, or neck of the bladder, unless particular care be taken, that the strength of the injection be very gradually increased. The calomel injection, at the commencement of it's use, should be in the following proportion: viz. ten grains to three ounces of water, and one ounce of the mucilage of gum arabic. The next degree of strength may be twenty grains of calomel to the same quantity of water and

if they, who prepare an injection after this method, would always use the same phial in dropping the solution, it would remedy this inconvenience, as the drops would be nearly the same. This solution may likewise be diluted in water with still greater nicety, by measurement, in a graduated glass measure.

Mr. Plenck was, I believe the first, who recommended a solution of muriated quicksilver in water, as an injection for the cure of the gonorrhœa. The sublimate has since been recommended for the same purpose by many authors, in the proportion of one to four grains dissolved in a quart of water. They have likewise ordered it, to be used in the smallest proportion at first, and to increase it's strength by degrees.

mucilage. The next advance should be forty grains to the four ounces of the same liquids. The last and strongest injection should not exceed one drachm of calomel to four ounces of the menstruum.

Although the mode of cure by mercurial injections is more certain, speedy, and effectual (leaving no gleet whatever behind it) than any other, with which I am acquainted, yet allowance must be made for cases of peculiar difficulty. The cure may sometimes be retarded under the best treatment, from something unfavourable in the patient's habit of body. Some wounds or secreting surfaces upon any part of the body, where the cuticle is removed, are cicatrized with great difficulty, unless we aid the process by internal as well as external remedies. This is particularly the case in scrofulous habits. It is nearly the same where similar habits exist in cases of gonorrhœa. In these, though there be not deep ulcerations in the urethra, yet it's inner membrane is in an inflamed secreting state, different from that attending a gonorrhœa in a healthy habit. This membrane must be also in a certain degree abraded at the part whence the discharge proceeds: of course something like a cicatrizing process must take place, in order to restore it to it's natural state. While this impediment from the habit remains, a mercurial

injection will not cure the complaint. We shall not be able to stop all the diseased secretion, and restore the urethra to it's natural state by this remedy, since the inflammation and secretion are occasioned by a cause, on which the injection cannot operate; a diseased state of the habit. We must therefore aid the cure by other remedies, internal as well as external.

When the discharge from the urethra has not been stopped by a mercurial injection of that degree of strength, which appeared the best suited to the irritability of the patient's habit, I have seen great advantage derived from adding to four ounces of the above injection, four grains of the vitriolated zinc*. A dose of Peruvian bark twice a day, and a generous diet, are to be recommended as auxiliaries. To these may be added (in some cases) the cold bath, or bathing the genitals once a day in cold water. Country air and sea bathing are likewise of great use, in promoting a cure of this complaint. Many instances might be adduced, and many such I have seen, in which patients, under these cir-

* The vitriolated zinc should never exceed the quantity of ten grains to four ounces of the liquid; indeed it seems to be the safest practice, from repeated trials which I have made, to keep under this proportion. My own method is to employ it in the quantity of four grains only to four ounces of the injection.

cumstances, have gone into the country, and there received a perfect cure, by persevering steadily in the use of that very injection, which, while they continued in town, seemed only to mitigate their disorder. In those obstinate cases of which I have been speaking, a steady perseverance in the injections number IV and V is particularly advisable; as I have more frequently seen such yield to these, than to any of the others.

In the use of injections it will likewise sometimes happen, that a cure will appear to be nearly completed in the usual time; no vestige of the complaint remaining, but a small purulent discharge, which may be squeezed from the orifice of the urethra before passing the urine in a morning, and which will not be removed by continuing the injection; while to use a stronger will be a still greater evil, for it will assuredly increase the discharge. If in these cases the injection be entirely left off, the discharge will immediately cease. From this effect it appears, that, owing to an irritable state of the urethra, the discharge abovementioned is excited by the stimulating property of the injection, after the virus is destroyed. In some cases, however, similar to these, it is so extremely difficult to ascertain, whether a discharge of this kind be owing to the mere irritation of the injection, or to a portion of remaining poison, that we

may sometimes find ourselves mistaken in the idea we had formed; for on leaving off the injection, the discharge will increase considerably in the course of two or three days. When such an effect follows the discontinuance of the injection, we have a proof, that the remaining small discharge was owing entirely to some lurking portion of the venereal poison: in such cases we must therefore again have recourse to the injection; to which should be added the internal and external remedies, already pointed out for the cure of obstinate gonorrhœas.

If, while a patient is using injections, he should be attacked with a hernia humoralis, or an inflammation of the neck of the bladder, and parts adjoining to it, the latter of which is known by a sudden and frequent desire to make water, by a straining propensity to void more after the bladder is emptied, or by both these symptoms; or if a phimosis, a paraphimosis, or a swelling in the perinæum should come on, it will be proper to omit the injection altogether, until these complaints are entirely removed, and afterwards to return to it's use with increased caution. All these affections generally proceed from phlegmonic inflammation, and not from the immediate action or presence of the venereal virus in the parts inflamed, and are curable by antiphlogistic

remedies; such as general and topical bleeding, gentle purging nearly every day, emollient fomentations and poultices, or sitting over the steam of warm water, and the occasional use of opium; to which must be added, a cooling regimen, and a horizontal posture, if the symptoms be violent. To these remedies, which must always be proportioned to the urgency of the symptoms, diseases of this class will generally yield in a short time*. But such success is not invariably to be expected: for sometimes these complaints, particularly the inflammation of the

* Any of these symptoms will sometimes come on from excess of exercise, or irregularity of living, and sometimes indeed without any apparent cause, where injections are not used. I am certain they are also frequently produced by astringent injections, or by the improper management of mercurial injections. But ever since I have used injections in the manner recommended in this essay, I have never found, that they occurred more frequently in a given number of cases, than they would have done in a like number treated without injections.

The inflammation of the neck of the bladder is a much more frequent attendant on the gonorrhœa, whether injections be used or not, than any of the other inflammatory affections, that have been noticed. It cannot indeed, like the others, be ascertained by ocular demonstration, to be the very complaint I have mentioned. No doubt, however, can arise with respect to it's real nature; as, in every instance I have met with, I found it yield to the plan here related,

neck of the bladder, will be extremely obstinate, and require a rigid perseverance in the prescri-

though in a few cases it has been very obstinate. I am clearly of an opinion, that opium in this case, as in many others truly inflammatory, moderates the symptoms only for a time, and protracts the complaint, without producing any real amendment, if given at the commencement, while the parts are in a state of high inflammation, and before evacuations are used. It is, however, of great service in the decline of the disease, after repeated evacuations. Opium is likewise a very useful and excellent remedy, where symptoms somewhat resembling the above, proceed from mere irritation or spasm. In all these cases, as in a great number of other complaints about the bladder, proceeding from different causes, opium is a very valuable remedy; especially, if introduced into the rectum, either in the form of a small injection, or a pill, mixed with Castile soap, to increase it's bulk. The dose should be proportioned, to the violence of the symptoms, the age of the patient, his habit of using opium, &c. In general, it requires nearly double the quantity, if used by the rectum, to what would be sufficient, if taken by the mouth. In introducing the pill, the anus, and the whole of the fore or middle finger of the operator, or patient, should be well oiled; after this, the pill should be pushed up beyond the sphincter; where it will remain, be absorbed, and produce it's effect in a short time.

These complaints will, as I have observed, generally yield in a short time, if the directions recited in this essay be strictly followed. But I would remark, that in all of them, blood-letting, especially from the arm, is not so generally practised as it ought to be. The subjects being mostly young, are able to bear considerable evacuations. In the hernia humo-

bed plan, before they will yield to it. We meet with instances indeed, though they are rare, in

ralis in particular, the disease is before our eyes. We see the size of the part, and the degree of inflammation; and if these be so considerable, that the patient is unable to sit up, or keep in the erect position,—it is not sufficient to apply a few leeches, and administer a purgative. Leeches, in these cases, as in many others, are among the choicest and best remedies we have; but they will not in general take away a sufficient quantity of blood at the commencement of the complaint. Although they have the advantage of taking it so near to the inflamed vessels, they do not empty the general system sufficiently: they want the assistance of copious and frequent blood-letting from the arm; and much as I value the use of leeches, it is my duty to observe, that in all the cases of hernia humoralis which I have seen, where the symptoms have been violent, the pulse hard, the heat of the skin greater than natural, and the pain and swelling of the part considerable,—I have seen more benefit derived from a single blood-letting from the arm in a few minutes, than from the repeated application of leeches. Every scientific surgeon knows the quantity of blood which ought to be taken at each time, as well as the time for repeating the operation; these of course must be proportioned to the strength of the patient, and the violence of the symptoms; and if a slight syncope follow the evacuation, much more benefit is derived from it, than if this effect did not take place. In these cases, as well as in the inflammation, at the neck of the bladder, leeches may be applied freely to the scrotum, and perinæum, alternately, with blood-letting from the arm. When it is judged advisable to stop the general evacuations, leeches may be used alone, till the cure is completed.

which the latter disease continues in spite of all these remedies for several weeks, and at length terminates in a suppuration in the perinæum.

In the treatment of a hernia humoralis, it is of great importance to apply such topical applications, as will best assist the cure. Practitioners differ more in this part of the treatment than in the former, as some recommend cold applications to the part; while others advise warm fomentations, and emollient poultices. Experience has long taught me, that both of these remedies are proper or not, according to the period of the complaint. If the evacuations by blood-letting and purging be pursued adequate to the violence of the complaint, if the patient be confined to a horizontal posture, and a vegetable diet, abstaining entirely from every kind of heating liquor, he will get well, whether the applications to the testicle be cold or hot, as these means are of themselves sufficient to effect the cure; nor is it easy to prevent the effect of such powerful remedies, by any outward application. One external application, however, may be more efficacious than another, in assisting to reduce the inflammation. At the commencement of the complaint, when the pain is violent, and the part highly inflamed and tense, the common fomentation, used twice or thrice in twenty-four hours, for about a quarter of an hour each time, applying afterwards a warm smooth poultice of bread and milk, with oil, or lard, will be much more likely to reduce the swelling, and procure ease, than the application of any cold sedative: but when the state of high inflammation is over, and the pain and swelling are considerably abated; when in fact, the disease is in that state of amendment, as to make it allowable for the patient to change his position occasionally from a recumbent to an erect one; I prefer the

Upon the first attack of a *hernia humoralis*, or an inflammation of the neck of the bladder, the chordee, ardor urinæ, and discharge from the urethra, generally abate, and sometimes cease entirely for a time; but we must not consider a removal of these inflammatory affections, as a proof of the cure of the gonorrhœa. In these cases, the inflammation only, and not the venereal poison, is translated to a neighbouring part; the latter is not expelled from the urethra; but for want of it's accompanying inflammation, it is in a great degree inactive. As soon, however, as the new inflammation is removed, the gonorrhœal virus shews it's activity again, by producing a fresh irritation, and secretion of pus from the urethra, although generally in a

use of cold saturnine applications to the poullice, in order to finish the cure. Of these, perhaps, there are none more efficacious, than a mixture of about half a dram of sulphate of zinc, and the same quantity of superacetate of lead, to half a pint of water: if this be applied frequently* upon a soft doubled rag, the remaining swelling will be sooner removed, than if the relaxing applications were continued to the end of the cure.

To assist in preventing a *hernia humoralis*, it is advisable in all gonorrhœas, to suspend the testicles. Mr. Renney, in a treatise on the venereal disease, has clearly shewn the utility of such a practice.

* Although a double decomposition may take place in this mixture, yet I have always found it highly efficacious.

much less degree than before: nor is this secretion often attended with that violent inflammation, or with the chordee and ardor urinæ to the same degree, which took place at the commencement of the disease: the latter of these, on the contrary, in many cases, do not return at all.

As a proof that the gonorrhœal discharge, after the attack of these inflammations, proceeds from the same part of the urethra, from which it issued before, I have made a perfect cure in every instance which I have met with, by a mercurial injection, thrown up with a syringe, of the same size as that used for a gonorrhœa, where no such inflammation had previously taken place: which could not possibly have happened, had the gonorrhœal poison, in these inflammatory attacks upon the neck of the bladder and testicle, been translated (as some contend) to the inflamed parts.

In a few instances the gonorrhœal inflammation is translated to the eyes, and other parts of the body, equally distant from the seat of the primary disease. The following is a curious instance of such an occurrence. A young gentleman had contracted a virulent gonorrhœa, attended with chordee, ardor urinæ, &c. A few days after it's commencement, and before he had used injections, he was attacked with a

violent ophthalmia in both eyes. This was cured by the common antiphlogistic plan, and the gonorrhœa was afterwards perfectly removed by injections. About twelve months after this he contracted another gonorrhœa, attended with the same symptoms as the former. Soon after using an injection for it, he was again seized with a severe ophthalmia in both eyes. In a few days the inflammation left his eyes, and fell upon one of his wrists; leaving this, it attacked the other wrist; and then both the knees in succession. One of the lymphatic glands in the groin next became affected, and suppurated, putting on the appearance of a venereal bubo. From this time there was no fresh attack of inflammation in any other part. The bubo was cured without mercury; and the remaining inflammation in all the other parts was removed by the common antiphlogistic remedies: but a weakness and some degree of swelling remained in the wrists and knees, for some time, for which, under an idea that his disease was venereal, he was put upon a very severe mercurial course, by a practitioner to whom he had applied, which increased the evil. After having perfectly recovered from all these complaints, he contracted a third gonorrhœa, attended with the same symptoms as the former. Before any injection was applied, he was again seized with an

ophthalmia in both eyes; in a few days the inflammation left his eyes, and attacked one of his knees, which was soon much swollen from a collection of fluid in the joint. The inflammation flew to the other knee, and in succession to the ancles and wrists. Blood-letting and cooling evacuants, relieved these complaints; and the gonorrhœa was finally cured, as in the former instances, by the use of injections. It must be remarked, that in all the instances above related, when the inflammation first attacked the eyes, the chordee and ardor urinæ soon ceased, and the discharge from the urethra lessened. It is worthy of observation likewise, that the inflammation, in it's successive removals, was always accompanied with pain in the part it occupied, leaving the part it had deserted nearly easy*.

Having explained the method of curing these gonorrhœas by mercurial injections, I proceed to offer an illustration of the effects of such topical specifics, by a few observations on the action of mercury on the lues, when internally taken.

* As the inflammation in the hernia humoralis will sometimes go from one testicle to the other without any apparent cause, this case not only shews us a near affinity in all these complaints, but that some habits are singularly predisposed to them.

In general, most mercurial preparations will effect a cure of the lues, though some of them are certainly preferable to others for this purpose. It is the same in the use of the different mercurial preparations used in injections. In order to cure the lues, we must employ very different quantities even of the same preparation of mercury, in habits apparently the same, and afflicted with the disease to the same degree of violence. Sometimes the curative quantity will act merely as an alterative; at other times, it must necessarily stimulate the mouth and adjacent glands to various degrees in different cases, thereby producing an increase of secretion from them, before the destruction of the poison can be effected. Something analogous to this takes place in the use of mercurial injections; for we find that patients apparently of the same habit, and afflicted with the disease in a similar manner, require very different quantities of the same preparation of mercury in the injection.— Sometimes the injection cures the disease by acting as it were alteratively. In other instances, the cure cannot be obtained, unless the injection more or less stimulate the urethra, and even produce a temporary increase of secretion from it. Another analogous circumstance may be here introduced. In the cure of the lues, it is absolutely necessary, to continue the mercurial

course for some time, after the poison is apparently destroyed; otherwise the disease very generally returns. The case is exactly the same in using mercurial injections. In the generality of cases, a relapse may certainly be expected, if the injection be discontinued as soon as the disease is apparently removed. In each of these complaints, amendments and relapses will take place for a long time, by alternately repeating and omitting the internal use of mercury in one case, and the mercurial injection in the other, if the remedies be not continued till the disease is eradicated.

In the final cure of gonorrhœas of the first and second species by injections, after the previous use of mercury internally, and in the cure of gonorrhœas of the third species by the same remedy, a question may be made, whether we ought to administer mercury internally, in an alterative way, or upon any other plan, in order to prevent the effects of any portion of the poison, which might be absorbed into the blood. Mr. Hunter, and others, recommend this remedy to be given with such a view. I am, however, decidedly of opinion, that this practice is generally unnecessary, and that sometimes it is injurious to the constitution of the patient. Experience shows us, that the poison of the gonorrhœa, when properly treated, is very sel-

seldom absorbed into the blood, so as to produce the lues; herhaps, as Mr. Hunter observes, not oftener than once in a hundred cases or more. The fact is certain, though it may not be very easy to explain this circumstance to our entire satisfaction. If mercury acted as a tonic, and for the most part agreed well with the constitution of those, to whom it is administered, it might be advisable to order it in *every case* of gonorrhœa, to be continued till a cure was effected, in order to prevent the effects even of this rare absorption of the venereal poison.

But although mercury in good hands, under proper management, and while the patient is confined to his room, very seldom injures the constitution; it is by no means equally safe for a person to use it, while he is exposed to all the irregularities of a northern climate, and to various indulgences of appetite. There is no doubt, that many, to whom it might be given under these circumstances, would be so seriously indisposed from it's effects, as to be under the absolute necessity of being confined for some time to the house, should no worse consequence ensue. It is therefore a safer practice, not to give mercury internally, and to risk the subjecting a patient now and then to the lues, which is commonly a disease of safe and easy cure, than by it's administration to risk the bringing on a number of

complaints, some of which may prove much more difficult to cure than the lues itself. Beside this objection to the internal use of mercury in such cases, I am certain that in general it very much retards their complete cure. As therefore in these cases, we rely upon the topical application of mercury, and, as it's internal use, is sometimes known to produce, in the cases of wounds and superficial sores, an indisposition to cicatrization, I am clearly of opinion, that these gonorrhœas are much more readily cured by injection, without mercury administered internally, than with it. Whenever therefore the process of cure by injection is more slow than usual, instead of giving this remedy, I frequently advise in these cases also, a dose of bark to be taken twice a day; of which practice I have repeatedly seen the good effects.

Before I conclude this chapter, I would observe, that in order to give any injection a full effect, it is necessary that it should be properly thrown into the urethra, and that the syringe be well adapted to the purpose. For want of due attention to these circumstances, many patients have had complaints brought on, in addition to the gonorrhœa; and others have failed of obtaining a cure. The syringe should be made of bone, or ivory, with a conical point. It's bore should be between three eighths and

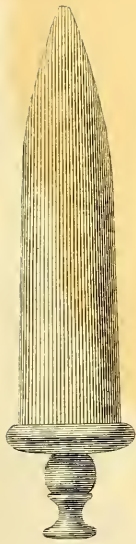


Fig. 1

half an inch in diameter. It should measure two inches and a quarter in length from it's point, without the piston, and should contain, when the piston is *withdrawn*, not more than one drachm of liquid. (Fig. 1.) In using it, the conical point should be inserted very carefully into the orifice of the urethra, and then gently but firmly pressed against it's lips.— While it is so pressed, the liquid should be forced by the piston into the urethra, and retained within it about half a minute. This may be done either by keeping the syringe firmly against it's orifice, or if it be withdrawn, by holding the lips of the urethra together, with the finger and thumb of the left hand. When the pressure is removed, the injection should either spin out, or discharge itself in large drops; if it return in neither of these ways, we may be certain, that it did not go in as it ought. In cold weather, the injection should be used a little warmed; and at all times it should be thrown into the urethra only once at each time of using it; otherwise every injection may give pain.

As the gonorrhœa is generally seated within two inches of the orifice of the urethra, it must be evident, that an injection ought not to go much beyond that distance; lest it carry any of the poisonous matter with it, or, by it's irrita-

tion in the lower part of the urethra, excite a swelled testicle, or an inflammation in the neck of the bladder. Having made numerous trials with syringes of various sizes, I am convinced, that it is not in any case necessary, to use them of a larger size than has been described. I have indeed used some that were considerably smaller, and have found them answer as well as the larger ones; but as it is difficult to keep them in order when they are so small, I have chiefly confined myself to those of the dimensions above given.

CHAPTER VI.

OF THE CURE OF THE GONORRHŒA OF
THE SECOND SPECIES BY INJECTIONS
ONLY.

IN the two preceding chapters, I have described a method of treating this virulent species of the gonorrhœa, that is safe, certain, and for the most part expeditious. A mercurial course is, however, a very unpleasant and disagreeable process to the greater part of those, who are afflicted with this complaint; as they neither wish to be confined to the house, nor to make a discovery of their situation to those around them. On these accounts, it is extremely desirable, to adopt a pleasanter method of treatment, provided it be equally efficacious.

Experience proves, that almost all these gonorrhœas may be cured by injections, without the aid of mercury internally. Authors and practitioners have indeed differed extremely with respect to the treatment of this disease. Some seem to think very lightly of every species of the gonorrhœa, and believe they can readily work a cure with a little injection in any stage or state of the disorder. Some order mercurial, and others vitriolic injections. Others again,

from seeing the great uncertainty of these remedies, and the mischief which often arises from them, condemn the practice of using injections altogether, and endeavour to cure the disease without them, and even without the use of mercury internally administered. In my MS. copy of professor Monro's lectures, he sensibly observes, on this subject, " That no two practitioners are agreed as to the use and effects of injections: some recommending them as infallible; while others entirely discard them as dangerous." But it ought to have been known with certainty long before this period, whether injections be really serviceable or not; and if serviceable, what should be their composition.

Every powerful remedy, whether it be for an internal or an external disease, should be well adapted to its cure, and be used in adequate doses. It should be recollected, that in many diseases the individual remedy ought to be administered only at certain periods of the complaint. Some collyria, and other outward applications to the eyes, for example, are proper only in the decline of some inflammations: were they used at the commencement of the disease, the eyes might be totally destroyed thereby. Injections for this species of gonorrhœa are, in like manner, generally injurious at the commencement of the disease; and if this be true, even when the

injection is of the most approved kind, what must be the effect of injections in this state of the disease, if they be made of improper materials? Injections composed of vitriol of zinc, or the like substances, have been strongly recommended by some authors, as superior to any others for the cure of gonorrhœas in all their different stages. It is, however, a matter of the highest importance, to ascertain the effects produced by them, and to determine whether they may be depended on for the cure of such complaints. For many years past I have been very attentive to the effects of the white vitriol, in a great variety of cases, both of the second and third species of gonorrhœa; and I am decidedly of opinion, that it will in no case whatever make a perfect cure of a virulent gonorrhœa of the second species. But this is not all: I have no doubt of it's being a dangerous remedy, and altogether unsuited to eradicate the venereal poison. At the commencement of a bad gonorrhœa of this kind, it is well known, that the inflammation first begins upon the inner membrane of the urethra, and afterwards spreads to the substance of the corpus spongiosum and glans: indeed the blood vessels of the whole penis are, in many cases, in a state of excitement; as is evident from the tension, heat, and fulness observable through ever

part of it. On this important part of my subject I shall quote the words of an author, who has had frequent opportunities of observing the morbid state of these parts by dissection:—"The
" inflammation is often not confined to the
" inner membrane of the urethra, but spreads
" into the substance of the corpus spongiosum,
" affecting both it's cellular structure and it's
" glands. Under these circumstances the corpus
" spongiosum is enlarged, and harder, from the
" extravasation of the coagulable lymph into
" it's cells, and is more vascular than in it's
" natural state. The glands being increased in
" size from the inflammation, become sensible
" to the touch, like very small rounded tuber-
" cles*."

The effect of so much inflammation in this gonorrhœa is a plentiful secretion of pus from the glandular surface of the urethra; this undoubtedly serves to unload the vessels, to abate the inflammation, and to prevent it going on to suppuration, or rising to such a height, as might injure the structure of the parts. This secretion is to be considered as an evacuation intended to answer these purposes. It's quantity is in proportion not merely to the quantity of the poison upon the inner membrane of the urethra, but

* Baillie's Morbid Anatomy, p. 227.

to the degree and kind of inflammation in all these parts. From this statement, let any one judge, what must be the effect of an astringent injection, applied to the surface of the urethra in the height of the inflammation. It indeed instantly checks the secretion, but so much the worse for the patient; the inflammation in the corpus spongiosum is thereby increased: and as the inflamed vessels cannot be relieved by the discharge, a metastasis of inflammation very frequently follows this mode of practice; the inflammation being frequently translated to other parts; sometimes to the neck of the bladder; or to one of the testicles; and sometimes, though more rarely, to the perinæum; or to the eyes, and other distant parts. Hence arise new complaints, that will require all the ability and attention of the surgeon to remove. These are common effects of vitriolic injections, during the inflammatory state of a virulent gonorrhœa. Were they to act in this manner in every case in which they are employed, they must long since have been discarded. I have indeed myself made use of them, but cannot recommend them; my observation leading me to conclude, that at least one half of those, on whom they are used, will be affected with some of the inflammatory complaints above-mentioned.

From the astringent and sedative powers of the vitriol of zinc, when used to a lax, inflamed, and secreting surface, it not only tends to lessen the secretion, but, by repeated applications, it may (if no inflammatory affection of the neighbouring parts happen to take place) abate the inflammation on the surface of the urethra.— The ardor urinæ, chordee, tension and inflammation of the corpus spongiosum, will likewise gradually lessen, and after a considerable time, in many cases, nearly go off, if general evacuations, and the antiphlogistic plan of living be at the same time directed. When we consider, that all these symptoms are produced by the violence of common inflammation, we need not be surprised, if these remedies, which have a power of lessening and removing inflammation, should be able to effect it in this case as well as in others; though it should have been at first excited, and afterwards kept up, by the irritation of a particular poison. But, even in these cases, injections of the vitriolic kind will not make a perfect cure of the gonorrhœa. Sometimes indeed by persevering in their use, the discharge will be entirely removed; and the patient will appear to have received a perfect cure of his complaint: but in other instances, it will not be possible to remove the discharge entirely. In every case I have almost invariably

observed, that the discharge returns commonly in two or three days; the chordee and ardor urinæ likewise generally return with it, though for the most part with less violence, and the patient relapses nearly into as bad a state as at the commencement of his complaint, if the injection be left off. Upon resuming the injection, the discharge, with it's usual symptoms, will again lessen, or disappear: but upon it's disuse, they will return again. And thus the complaint will retreat and return, on alternately leaving off and using the injection, till the surgeon and patient are both tired of following the plan.—Nor will it afford any assistance to this inefficient mode of treatment, to repeat the injection more frequently, to continue it a longer time than is ordinarily done, or even to increase it's strength; indeed the last will only render it more stimulant, and increase instead of lessening the discharge.

Having repeatedly tried all these methods, I conceive it to be a duty to confess, that I have not, in any of these cases, been able to effect a single cure by the vitriol of zinc used in injections. It clearly appears, that this remedy has not the power of destroying the gonorrhœal virus; it only moderates the inflammation, checks the activity of the poison, and thereby lessens or removes the discharge, with the chordee and

ardor urinæ, as long as the injection is used; but as soon as it is discontinued, the poison recovers it's power of stimulating the urethra, and reproduces the disease. But these are not all the bad consequences of this remedy, I wish I had not to add a long list of incurable glects, and obstinate strictures, occasioned by it's use. In short, I am convinced, that no remedy which has ever been used for the cure of any complaint, since the time of Hippocrates, has done *more* mischief, than astringent injections in the worst kinds of gonorrhœas. If the use of them be admitted, we should be compelled (as Mr. Bell has done) to divide gonorrhœas into the first, second, third, and fourth stages, and to treat that as a complex disease, which is in general a simple one*. All this, I conceive, arises in a

* The vitriol of zinc has been recommended by Mr. B. Bell, as superior to any mercurial preparation for the cure of gonorrhœas. It has had a fair trial. It has now been used so many years for this purpose, and has been in the hands of so many young men out of the profession, as well as in it, that it would long since have been relied upon with as much confidence for the cure of these complaints, as mercury is now for the lues, had it really possessed the power of making a perfect cure. The same gentleman also acknowledges, that mercurial injections will cure gonorrhœas; and in order to reconcile this fact with the plan of cure by astringents, he observes, that mercurial injections act as

great degree from a favourite hypothesis of some eminent in the profession, viz. that the gonorrhœal virus is *altogether different* from the venereal.

I have tried the vitriol of zinc for the cure of the gonorrhœas of the third species; but here I have been as much disappointed, as in the application of it to those of the preceding species. As there is in these cases much less inflammation, than in the gonorrhœa of the second species, less mischief may indeed ensue from the use of this remedy. But though more innocent, I have not found it more efficacious, having never succeeded in making a complete cure with it, except in a very few instances, in which the disease perhaps did not originate from the venereal poison, but from simple irritation. The complaint, as in the former instance, will go and come upon the use or discontinuance of the injection, but a radical cure is not to be expected.—If these be the effects of injections composed of the vitriol of zinc, we may presume, that the like effects will follow from the use of

common astringents; but how happens it then that the quicksilver ointment, and quicksilver triturated with honey, have been sometimes known to cure a gonorrhœa, when introduced into the urethra, as well as the saline preparations of that mineral.

the sugar of lead, and other sedative and astringent preparations.

Vitriolic injections, as before shewn, will, in some cases only, relieve the symptoms of a gonorrhœa of the second species, without effecting it's cure; but mercurial injections will make a perfect cure of almost every case of this complaint, without the internal assistance of mercury. This position may appear rather extraordinary, after what has been said in the preceding chapter on the internal use of this remedy. Yet when it is considered, that the effect of the venereal poison in a gonorrhœa is local, and that the same poison, when deposited in the form of chancres, or ulcers, upon any of the external parts of the penis, is frequently destroyed by topical applications alone; the assertion may not appear so extraordinary in itself, whatever it may be as connected with the preceding observations.

When the urethra is in a state of high inflammation, a topical application, even of the kind which will destroy the poison on it's surface, will irritate, and of course add to the inflammation, instead of lessening it; and thereby risk the bringing on an inflammation in the testicle, or some adjacent part. The inflammation must therefore be diminished by other remedies, before it will be safe to attempt the destruction of

the poison by mercurial injections. There is a considerable analogy between this method and some circumstances in the treatment of other venereal complaints; as for instance, in the necessity of removing an inflammatory diathesis in the habit, before the internal use of mercury in the lues, or of a great degree of local inflammation in a case of bad phimosis with chancres, previous to the use of the same remedy, or before the application of a caustic as an assistant in the cure of a chancre. The propriety of this practice, in all these cases, is too obvious to need any comment.

Since all the violent symptoms attending the commencement of a gonorrhœa of the second species are owing, as has been already observed, to inflammation, our remedies must of course be such as will remove, or at least lessen it. For this purpose, blood-letting, repeated purgings, abstinence from flesh-meat and all heating liquors, with the occasional use of opium, are the chief means. All violent exercise should be carefully avoided. Emollient fomentations, or sitting over the steam of warm water, may also be sometimes used with great advantage. If these means be persisted in, as the case requires, they will undoubtedly have their effect in gradually reducing the inflammation, and with it all the symptoms, which it produces. Yet we are

not to expect, that they will have the same speedy effect, as if the inflammation were excited by a common cause. We must always keep in mind, that though we are daily using remedies to abate inflammation, the poison is ever acting, and tending constantly to keep it up. As a proof of this, I have met with an instance of violent gonorrhœa, in which a purgative was repeated for thirty days together, and a strict adherence to the antiphlogistic plan of living observed, without producing any material alteration in the complaint, or any considerable abatement of the inflammatory symptoms. Yet, as remarked in a former chapter, I have known all these symptoms nearly removed in a few days, by the internal administration of mercury, in these cases the most powerful antiphlogistic.

By persevering in the plan already pointed out, together with the use of diluting or demulcent liquids, and gum arabic, a gradual abatement of the ardor urinæ, chordee, and discharge, will be obtained. As soon as this takes place, we may venture (but with caution) on the use of mercurial injections: these will generally be found to produce a greater abatement of the symptoms in one day, than the evacuations were able to effect in a fortnight. They, who have been much conversant with this mode of treatment, well know the great

relief, which it speedily affords. It lessens the ardor urinæ and chordee, and by degrees the discharge likewise; which it renders whiter and thicker. And so directly does the mercury, in this topical application of it, act upon the virus, that were it safe to attempt it's destruction by a single injection of extraordinary strength, or by a strong caustic, as we sometimes do in a chancre, all the symptoms of the disease would very soon go off, and the patient would receive a perfect cure. It is of considerable use in practice, to know the effect of mercurial injections in these cases, that we may apply them without loss of time, as soon as the urethra appears to be in a state to admit of their use. In some cases, indeed, we may have recourse to these injections with safety, even after the inflammatory symptoms have appeared; but I have so frequently seen inflammations of the adjoining parts brought on by them, that I conceive it to be a safer practice, not to use them at the commencement of the inflammatory process: especially as those cases, in which they prove injurious, cannot be distinguished from others, in which they are useful. So tender is the urethra in many of these cases, that the mere application of a syringe to it's orifice is painful and irritating.

The mercurial injection which I prefer to all others, is the diluted solution of muriated quick-

silver, prepared in the manner already mentioned in the preceding chapter. That which is there denominated number I. should here be always first employed. For the first week it should be used thrice a day only; afterwards four or five times a day. As long as the symptoms go on decreasing by the use of this injection, we ought on no account to increase it's strength; but if there be no progress in the amendment, we must proceed to the use of number II. and afterwards to number III. and IV. provided the discharge continues, and that the urethra, by having become less irritable, admits of our pursuing this course. We must here attentively observe all the directions before laid down, respecting the propriety of keeping to any injection already in use, before we proceed to one of greater strength. From the observations which I have made, I am led to conclude, that very few of the gonorrhœas of the second species will be perfectly cured either by the injections number I. or II. More will yield to number III. and still a greater proportion to number IV. Having arrived at the last named injection, we must in these cases likewise be extremely cautious how we proceed to number V. and yet it is found by experience, that many of the complaints in question require this, and some a still stronger injection, before the disease can be

cured. In short, almost all these gonorrhœas may, by a nice management of this injection, be as perfectly cured without the internal use of mercury, as with it; but not without running a much greater risk of bringing on a swelled testicle, or some other inflammatory affection near the seat of the disease; while stronger injections, and more time, will often be required to effect a complete cure.

Among the cases treated upon the plan recommended, much difficulty will sometimes occur in making a perfect cure. Affections of the habit, similar to those which were mentioned as impediments to the cure of some gonorrhœas of this species, previously treated by the internal use of mercury, may create this difficulty. In such cases we must have recourse to the means before specified*. Even where there is no apparent indisposition of this kind, we may now and then be baffled for some time in our attempts to remove the discharge entirely. It will disappear, and return again and again, upon alternately discontinuing and using the injection, in the same manner as has been described in treating of vitriolic injections: the return of the running generally happens within three or four

* Page 64.

days; in a few instances it will be a week, and sometimes, but very rarely indeed, a fortnight or three weeks after the discontinuance of the injection. In these obstinate cases, I have generally found it necessary to make the injection a little stronger than usual, which will sometimes occasion a slight degree of pain, or a small increase of the discharge. I have indeed, in some instances, succeeded by persevering in the use of the injection number IV. or V. for a month or two after the cure appeared to be completed, without going to any farther increase of strength*. This rule must likewise be observed in many other cases of this species of gonorrhœa, treated solely by injections of any other degree of strength, otherwise we shall not succeed in curing them. If we still fail in

* As a proof of the superior efficacy of mercurial injections in totally eradicating the venereal poison from the urethra, I can truly say, that, having adopted the plan of treatment recommended in this essay, for the last twenty years, I cannot recollect more than two or three instances, in which it failed of removing every particle of the discharge, and every other symptom of the disease. I have indeed seen some cases singularly obstinate; many months elapsing before a complete cure could be effected. One of the above cases was succeeded by a stricture, which probably occasioned the difficulty in making a complete cure.

removing the discharge, it will be prudent to administer mercury internally. From the obstinacy of such a case, we may fairly conclude, that there are little ulcerated spots or erosions in the urethra, which no topical remedy will remove.

Having thus detailed a method, by which gonorrhœas of the second species may be safely cured, without the internal aid of mercury; I think it right to observe, before I dismiss this part of my subject, that, in the treatment of these gonorrhœas, I have, in a considerable number of cases, joined vitriol of zinc to the muriated quicksilver in the injection; even where there has been no symptoms of any indisposition in the habit requiring it. But if it be used indiscriminately in all gonorrhœas of this species, even after the previous use of evacuations, and in that period of the disease which has been deemed proper for the commencement of a mercurial injection, strong objections will arise to its use. For although no more than one grain of white vitriol be added to an ounce of an injection of muriated quicksilver of any degree of strength, it will very often happen, that the discharge shall be stopped too soon, and an inflammation at the neck of the bladder be the consequence. This compound injection will also frequently give pain and irritate, while an

injection with the same quantity of muriated quicksilver, but without the vitriol of zinc, will have no such effect: and lastly, this injection is defective, as not being possessed of that degree of mercurial activity, which may be absolutely necessary to effect a cure of the disease. To illustrate this idea, suppose a case required the mercurial stimulus of number V. and that the urethra would bear this injection (by degrees) without being stimulated so as to excite much pain, or increase of the discharge; yet, if the above mentioned quantity of vitriol of zinc were added to it, both these effects might follow. To obviate them, we must use number IV. but this mixture would be too weak, to effect a cure.— If, however, an injection composed of vitriolated zinc, and muriated quicksilver, neither bring on an inflammation of the neighbouring parts, nor excite pain, it very often removes the discharge, and makes an apparent cure of the gonorrhœa sooner than one with muriated mercury only. Yet it often happens, that the discharge returns upon leaving off the injection, and that neither the continued use of it, nor increasing it's strength, will produce a sound cure under the best management. It must be confessed, however, that in many cases, in which this compound injection is used, the powers of the mercury will prevail, and effect a cure: but,

as we cannot distinguish these cases, from those in which it will bring on an inflammation at the neck of the bladder, or excite pain; or from others in which it fails of making a complete cure; I am clearly of opinion, that we ought not to use the vitriol of zinc in injections, except when there is reason to suspect some fault in the constitution; and where, after a fair trial, we find that the discharge cannot be removed, or a perfect cure made, by mercurial injections alone.

From what has been advanced, it appears, that the art of curing gonorrhœas of the second species without the internal use of mercury, consists first in abating the inflammatory symptoms, and then in the nice management of mercurial injections. Whoever reflects upon the state of the urethra in these cases must see, that injections ought not to be used upon any other plan, than what has been here laid down. The urethra is naturally very sensible; but when it is inflamed, and it's blood vessels turgescient, it is extremely irritable. Of course, an injection of that degree of strength, which would neither give pain, nor produce any inconvenience, when it is in it's natural state, must, when it is inflamed, give great pain, increase the inflammation, and in many cases bring on very serious and alarming consequences. It is therefore,

absolutely necessary, to begin with injections which are so weak as not to irritate: but when, from the use of injections, the stimulating powers of the venereal poison are upon the decline, and the inflammation abates, the sensibility of the urethra decreases, and by degrees it is at length brought nearly into its natural state; so that it will then bear, with less pain, an injection four or five times stronger, than it could have done while it was inflamed.

In every species of the gonorrhœa, I have occasionally ordered the balsam of copaiva; but I cannot say, that I have found it of much service. It will indeed frequently lessen the discharge, while it is used; but I have almost invariably found, that upon leaving it off the discharge returns, notwithstanding, it had been used for a considerable length of time.

Before I conclude this chapter, it may be necessary to remark, that, although gonorrhœas of the second species may be cured by the use of mercurial injections, without the aid of mercury internally given; yet it may be asked, whether we ought not to administer it as an alterative, in order to prevent the absorption of the venereal poison. It must be allowed, that there is more danger of such an absorption, when mercury has not been given internally, than when it has: yet, from the facts which have passed

under my own observation, I am of opinion, that, provided the cure be conducted in the manner here directed, a gonorrhœa of the second species will very seldom be followed by the lues; even when no mercury is given internally.

I shall close this chapter with two lists: one, of five hundred cases of gonorrhœa, cured by injections of the solution of muriated quicksilver; and the other, of one hundred and twenty, cured with injections of calomel. These lists are inserted for the sake of furnishing younger practitioners with an experimental standard, by which they may in some measure determine the required strength of an injection. The cases, to which these lists refer, were chiefly gonorrhœas of the second and third species; but for want of minutes taken at the time, I cannot now tell how many of them belong to the former, and how many to the latter. In some of the second species, mercury was given internally, according to the plan laid down in the fourth chapter. In others, the cure was obtained by injections only: and some both of the second and third species were cured with the vitriol of zinc added to the injection.

Cured by injections of muriated quicksilver.

Cured with number I.....	86
DittoII.....	101
DittoIII.....	58
DittoIV.....	134
DittoV.	47
DittoVI.....	37
Ditto..... VII.....	16
DittoVIII.....	14
Ditto IX.....	4
Ditto..... X.....	3

500

Cured by injections of calomel suspended in water by the mucilage of gum arabic.

Cured with ten grains of calomel, to three ounces of water, and one ounce of mucilage.....	}	13
Ditto, with twenty grains of calomel, to the same quantity of water and mucilage.....		
Ditto, with forty grains, to ditto.....		48
Ditto, with one drachm, to ditto.....		12

120

NOTE.

I have no experience of the new remedies in the cure of the gonorrhœa, but I place great confidence in what is con-

tained in the following paragraphs, extracted from Mr. Pearson's and Mr. Blair's valuable works.

“ My friend, Dr. Joseph Vigarous, of Montpellier, informs me, that he has given the nitrous acid with great advantage in the gonorrhœa. I have not been quite so successful; for the only instance which has occurred in my practice, of it's conferring speedy and decisive benefit in that complaint, is that of Macdonald.”

Pearson's Observations on the Lues Venerea, p. 160.

“ Gonorrhœa and leucorrhœa may now and then be removed by the acids, employed internally or by injections; but they often will produce a troublesome dysuria, and are not so certain in arresting those discharges as the common means of cure.”

Blair's Essays, Part 2, p. 343.

CHAPTER VII.

OF THE TREATMENT OF THE VENEREAL
GLEET.

THE intention of this chapter is not to treat of gleans in general, but of such only as follow recent gonorrhœas, and are usually called by this name; but they are in fact gonorrhœas imperfectly cured. As in every form in which the venereal poison appears in the human body, it is sometimes eradicated with great difficulty, it is no wonder, that the same difficulty should sometimes occur in removing it entirely from the urethra; especially in those cases, in which a gonorrhœa of the second species has not been properly treated. Part of the virus may be destroyed, but a portion of it may still remain lodged within one or more of the lacunæ, or upon a small spot on the urethra, where it had penetrated to a greater depth, or had produced a superficial chancre. It should always be remembered, that however small the discharge may be, (provided it be of a yellow purulent kind), it is not less infectious, than on the first day the disease was contracted; as I have too frequently found to be the case in men, who

entering into the married state while in this situation, have unhappily communicated this disease to their wives*.

It is not at all surprising, that the venereal poison, if it be of the same kind as that which exists in a chancre, or a bube, should sometimes remain a long time within the urethra in an active state. It would be more extraordinary if it did not. I believe that this poison may remain in the urethra in almost an unaltered state for several years together. I do not assert this from any attachment to theory: my own experience, and the testimony of others, lead me to the conclusion. If the discharge in these cases be proved to be of an infectious nature, and to be curable

* From the observations already made on the colour of the gonorrhœal secretion, after the inflammatory stage is over, it must follow, that it is nearly the same in the venereal gleet. I am aware, however, that there are gleets of a yellow colour, having all the appearances of pus, which are not of an infectious nature. In many of these cases, it is certainly difficult to say, whether they be of this kind or not. I think it of consequence, however, that in every similar case immediately following a virulent gonorrhœa, we be very careful not to consent to a matrimonial engagement, without previously using every endeavour to cure this disease. In these cases I must observe, that I have almost always succeeded in totally removing the discharge by the same remedies, as in the early period of gonorrhœa.

only by the methods taken for the removal of a recent gonorrhœa, there can be little doubt entertained, that the disease proceeds from the same cause. These remarks may be illustrated by a few extracts from authors of eminence.

Turner says, "he has frequently known *gleets* infect married women*."

Sir William Fordyce observes, that he has seen obstinate *gleets* of two, three, or four years standing, effectually cured by mercurial inunctions, and he suspects that an internal chancre is the cause †.

Dr. Swediaur remarks, in treating of gonorrhœas attended with ulcerations in the urethra, "that *gleets* remaining after these gonorrhœas, though they obstinately resist all other remedies, yet frequently very readily yield to the use of mercury, either externally or internally applied: I can even affirm with certainty," continues he, "that a gleet of this latter kind of any standing, can never be radically cured without it. ‡" In another part of his work he has the following observation on the same subject; "I have found a large dose of calomel,

* Turner's Syphilis, p. 450.

† Sir William Fordyce's Treatise on the Venereal Disease, p. 52.

‡ Dr. Swediaur's Treatise on the Venereal Disease, p. 32.

“ prepared according to Mr. Scheele’s process*,
 “ suspended in a small quantity of simple water,
 “ and injected five or six times a day, prefer-
 “ able to any other remedy †.” And in another
 “ place he says, “ gleans are often infectious ‡.”

Even Mr. Bell, who attributes gonorrhœas, and of course gleans, to a poison altogether different from the venereal one, acknowledges the power of mercurials in their cure. He says, “ one of the best injections for gleans is a solution of muriated quicksilver§.” The same author afterwards observes, “ that strong mercurial ointment, proves often as effectual when rubbed on bougies, as any other remedy employed for gleans||.”

Van Swieten relates the case of a man, who “ had laboured *four years* under the most “ malignant gonorrhœa ¶,” which of course in the latter period of it would, by many practitioners, be called a gleet.

Mr. Hunter is also of opinion, that the virus of gonorrhœas, when they terminate in gleans,

* Hydrargyrus muriatus mitus. Ph. Lond.

† Dr. Swediaur’s Treatise on the Venereal Disease, p. 58.

‡ Ibid. p. 63.

§ Treatise on the Gonorrhœa, Vol. I, p. 193.

|| Ibid. p. 198.

¶ Van Swieten’s Commentaries, by Elliot, Vol. XVII, p. 190.

will sometimes last a great length of time: he gives an instance of a woman, who gave a gonorrhœa to a gentleman, immediately on coming out of the Magdalen, where she had been confined for two years*.

Supported by these respectable authorities, we may be permitted to infer, that gleans of this kind are uncured gonorrhœas.

Before I proceed to the mode of treating this complaint, it is necessary to remark, that it is considered as entirely unconnected with a stricture in the urethra. Gleans very much resembling this discharge, frequently succeed virulent gonorrhœas, and are occasioned by strictures in this canal. These strictures will sometimes, (though very rarely) come on in the first stage of a virulent gonorrhœa, when it is attempted to be cured by astringent injections; but they more frequently take place after such treatment, when the cure has been protracted for a considerable length of time, and the disease perhaps at length left entirely to itself. I have observed likewise, that strictures much more frequently take place after the treatment of gonorrhœas in which no injections are used, than where mercurial injections have been employed in a judicious

* Mr. Hunter's Treatise on the Venereal Disease, p. 32.

manner*. In short, a stricture is so frequent an attendant on what is commonly called a gleet,

* We are told by Sir Everard Home, that three fourths of the natives of rank in India are troubled with strictures, which is entirely attributed to the effects of gonorrhœa, for the cure of which no local applications are in use. Sir Everard ascribes the prevalence of strictures to the frequent habit in that climate of prolonging the venereal act for a considerable length of time. To me, however, it appears clear, that if the gonorrhœas were treated by local applications, and thereby perfectly cured, these complaints would be much less frequent. From the observations I have made, I am of opinion, that a venereal gleet will generally continue for a considerable length of time, in spite of every remedy, if gonorrhœas be not treated by local applications. For want of these, strictures will much more frequently follow, through the longer continuance of irritation in the urethra, than where the disease is entirely removed from that canal in a short time, by the judicious management of mercurial injections.

To shew still further the variableness of opinion respecting the use of injections, and their effects in gonorrhœa, Sir Everard Home observes, (page 40 of his Treatise on Strictures) “ From the idea, that injections do sometimes produce
“ strictures, and that we are unable beforehand to deter-
“ mine, in what cases they may be used with impunity, I
“ have been induced entirely to forego their use in the
“ treatment of gonorrhœa, rather than incur a risk, how-
“ ever small it may be, of producing so seriously distressing
“ a complaint.” If the same rule were adopted with respect to other remedies, in the treatment of many other diseases, and particularly in the application of the caustic to strictures

that every practitioner should have an eye to the possibility of its existence, in every disease of this kind. Strictures, by narrowing a part of the canal of the urethra, contract the stream of the urine: by which it is longer in passing, is voided more frequently, in less quantity, and with more straining than usual. By these symptoms, which are commonly proportioned to the degree of contraction, the disease may generally be known.

But strictures have not always these effects, especially at their commencement; they are so slight in some cases, as to occasion little or no impediment to the passage of the urine: and yet the gleet may probably depend in a great measure, if not entirely, upon their existence. Where a stricture accompanies a gleet, the discharge may frequently be distinguished from that which proceeds either from a recent gonorrhœa, or one in a more advanced stage; as it is mostly thinner, of a dirty yellowish colour, and accom-

of the urethra, we should be obliged entirely to forego the use of some that are very powerful, because they sometimes produce a disagreeable effect. It is, however, entirely owing to the abuse and injudicious management of injections in the gonorrhœa,—of the caustic in strictures,—and of every other remedy of activity and power employed in other diseases, that seriously distressing effects are so often produced by them.

panied with a greater quantity of colourless mucus. If it be not easy to determine, whether a stricture exist or not, it may be decided by passing a bougie. It should be remembered, however, that, although strictures attend many gleet, especially those of very long standing, yet in the venereal gleet there is no stricture whatever, otherwise this complaint would yield neither to the internal use of mercury, nor to mercurial injections, without the aid of bougies, or other means of similar intention.

These statements preclude the necessity of entering into any detail of the method of curing the venereal gleet, as it must be nearly the same as that of a recent gonorrhœa. If we suspect, that there is a small lurking chancre in the urethra, or that this part is excoriated by the poison to such a depth, as not to be easily healed by the action of the injection, we should advise the internal use of mercury, as directed in the treatment of the gonorrhœa of the second species; finishing the course, if any discharge remain, by mercurial injections. If the disease appear curable by injections only, it is advisable to adhere strictly to the use of them; since this method does not oblige the patient to confine himself, as the internal use of mercury often does. In the treatment of these complaints it should be remembered, that, the inflamma-

tory stage of the gonorrhœa being over, the urethra is generally able to bear the use of injections, of a proper degree of strength, without exciting much pain, and that they may be administered with less danger of exciting inflammation in the neighbouring parts. In those gleet, of which Sir William Fordyce treats, there evidently were deep excoriations, or little chancres, in the urethra; otherwise these cases would not have been *effectually cured* by a mercurial course. These suppositions being admitted, we may infer the propriety, and even necessity of administering mercury internally, in the treatment of some of the more virulent and obstinate kinds of gonorrhœa.

It will occasionally happen, that a perfect cure of the venereal gleet will not be obtained by the use of mercury, either internally given, or administered by injections. In such obstinate cases, the bark, cold or sea bathing, or country air, will assist the intention of injections, which should be compounded of the vitriol of zinc and mercury; especially if the general habit be unhealthy. It is scarcely necessary to remark, that cold bathing ought not to be advised, during the internal exhibition of mercury.

THE END.

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