

From the Northern Journal of Medicine - June 1872

CONDYLOMA,

A

PRIMARY FORM OF VENEREAL DISEASE IDENTICAL WITH SIBBENS.

BY DAVID SKAE, M.D., F.R.C.S.,

Lecturer on Anatomy, Surgeon to the Lock Hospital, Eye Dispensary, &c.

(From the Northern Journal of Medicine - June 1872)

THE flat and whitish elevations of the skin occurring on the verge of the anus, on the perinæum, labia, or scrotum, and occasionally on the thighs, or even in the axillæ, and known under the names of *condylomata*, *tubercules muqueuses*, &c., are in this country generally ascribed to one of two causes. By some of our most distinguished writers they are ascribed to inattention to cleanliness in persons labouring under chronic discharges from the genital organs. "These soft excrescences," says Dr Adams, "arise sometimes in consequence of a discharge from the rectum stimulating the neighbouring parts to ulceration. If such ulcers are prevented from healing by the discharge continuing, or by the friction of the parts, they must either ulcerate deeper and wider, or the cuticle will send out processes to defend them. These, on account of the pressure they receive, grow in various shapes, from which they have acquired their names.

"They will arise from a venereal origin in two ways. If a secondary ulcer is seated in these parts, that ulcer, having no power of healing itself, will take the character above described from the nature of the parts. Sometimes, also, the matter of gonorrhœa, by falling from the vagina along the perinæum, will produce ulceration, and the same consequences follow."*

* Adams on Morbid Poisons, London, 1807, p. 173.

another view of the subject, now becoming prevalent in some parts of the Continent, namely, that condyloma is a *primary* form of venereal disease, distinct from either gonorrhœa or syphilis, but equally definite and specific in its character with the latter affection. This opinion is now entertained in some of the principal hospitals of Russia, Austria, and Germany, where the affection is described as a primary disease, under the name of *feigwarzen*. My attention was directed to the investigation of this subject only a few months ago by Dr Koch, one of the physicians of the Hospital of St Paul and St Peter at Petersburg; and I have since that time carefully examined the patients presenting themselves at the Lock Hospital labouring under this disease, with a special reference to the question of its primary and specific character, and have also, in every instance, endeavoured to reproduce the disease by inoculation. The following is the result of my observations and experiments, extending over a period of six months, viz. from 2d November 1843 to 2d May 1844.

The total number of patients admitted into the hospital during that period was 121, and the average number in the hospital was about 28, the whole of them being females. Of that number 36 were affected with condyloma, being about one in $3\frac{1}{3}$.

One of the symptoms which struck me as most remarkable, and present nearly in all the cases, was a peculiar hoarseness or huskiness of the voice. This symptom was much more marked in some than in others, but could be distinguished, I think, in all; even in those in whom no morbid change was visible in the mouth, fauces, or pharynx.

The appearances presented on the genital organs and parts in the immediate neighbourhood, were moist, indurated, and somewhat elevated patches, of a whitish and occasionally yellowish white colour. Most of these patches were irregular in form, but a considerable number of them, especially of those on the labia and thighs, were rounded and prominent. They were situated most frequently along the opposite margins of the labia majora, on the perinæum, and verge of the anus; less frequently on the outer surfaces of the labia and adjacent surface of the thighs, and on opposite and corresponding surfaces of the thighs, two or three inches below the labia. Many of them were the seats of superficial ulceration, or more frequently of vesication, the surface of the condyloma discharging a thin muco-purulent secretion. Those which were situated on the opposite sides of the

nates were less elevated, and presented a tendency to ulcerate in fissures as they approached the verge of the anus.

In two instances, three or four considerable condylomatous patches, white and elevated, although flat, were seen extending over the inner surface of the vagina as high as the cervix uteri.

In nearly all the patients, the mouth or fauces presented the appearances described by Dr Wallace as characteristic of this affection. These consisted in white and slightly elevated patches on the inner surface of the lips or angles of the mouth or cheeks; more frequently on the tonsils or arch of the palate; and not unfrequently on the tongue, sometimes on its edges, and sometimes on the dorsal surface near its root. So constant was the appearance of these milk-like patches on one or other of these parts, that I was in the habit, latterly, of examining the mouth and throat first, after noticing the husky voice of the patient, and almost invariably was able to detect some patch which enabled me to prognosticate that she was affected with condyloma of the genital organs before an examination was made. And in cases of condylomata of the genital organs, where the mouth or throat did not present these appearances at the period of admission, they were not unfrequently apparent soon after during the progress of the case. To this circumstance is to be attributed the fact to be immediately noticed, that in the journal of the cases rather less than one-half of the patients are noted as having had the throat affected.

In one or two instances only, and those were cases seen at an early stage of the affection, was the cutaneous eruption, described by Dr Wallace as a concomitant of the disease, observed. In those cases it presented the red-brown stain, the irregular form, and the tendency to scale off, or rather to desquamate, which seem to have been regarded by him as characteristic.

In only one instance did there exist a distinct condyloma in parts of the body other than those enumerated. This occurred in the case of a patient who presented a very large condylomatous patch in the left axilla.

Of the 36 cases, one or two were apparently complicated with syphilitic sores, as I was led to believe by the production of a pustule after inoculation, which had the appearance of those produced by inoculation from the true syphilitic chancre; others were complicated with gonorrhœa, as was proved by the history of its invasion and the appearances presented; and

others were complicated with a leucorrhœal discharge, as we ascertained by the use of the speculum.

Of the whole cases, 20 were accompanied with gonorrhœal or leucorrhœal discharges from the vagina. Of the remaining 16, five presented ulcers seated on the surface of the condylomata, of which one or two were suspected, from the result of the inoculation, the pustule being destroyed with caustic on its appearance, to be syphilitic. The remaining 11 presented neither gonorrhœal nor leucorrhœal discharges, nor ulcers, but were simple cases of condyloma. Of these 11, three were *undoubtedly* first affections, the girls not having had any previous venereal complaint. In five of them at least, I ascertained with as much certainty as the evidence of such patients admits of, that the disease *commenced* with the formation of the condylomatous patches or tubercles, and was not preceded by any sores or discharge, either mucous or purulent.

In 16 out of the 36, the throat is stated in the journal to have presented the characteristic appearance; but in nearly all the remaining cases the lips, mouth, or tongue, presented the condylomatous patches. These were most frequently seated in the angle formed by the commissure of the lips, occasionally on the inner surface of the lip or cheek. Those seated in the angles of the mouth appeared slightly excavated, and would in all probability have been described as ulcers by most observers, but they all presented the characteristic white or milk-like coating on the surface.

One patient was affected with iritis during the progress of the cure; two with inflammation of the lymphatic glands in the groin. Besides the cases referred to where the eruption described by Dr Wallace was present, one was affected with clustered lichen, one with rupia, and one with psoriasis venerea.

In 23 of the cases the duration of the disease, previous to admission into the hospital, was ascertained, and was as follows:—

Duration.		Cases.	Duration.		Cases.
2	weeks in	3	2	months in	7
3	...	3	3	...	2
4	...	4	4	...	1
6	...	4	5	...	2,

and in one case eight months.

The longer duration of the disease, previous to admission, did not apparently, *cæteris paribus*, render the cases materially worse than many which were of shorter duration, nor make the

cure more tedious. Of the two cases of five months' duration, one was cured in fourteen and the other in nine days. Two of the cases of two months' duration were cured in fourteen days, and one of the cases of three months' duration in seven days.

One or two of the patients were discharged for misconduct, some at their own request, and some remained under treatment at the date at which the report terminates; but of the remaining cases, 27 in number, the average duration, *i. e.* the term of treatment until they were discharged cured, was twenty-two days. Of these, two were in the hospital above two months, and eight between thirty and forty-five days, and in all of these cases the patients laboured under chronic discharges from the uterus or vagina, cutaneous eruptions, or ulceration of the throat. The average duration of the treatment in cases not affected with these complications was twelve days.

My treatment consisted chiefly in the application of stimulants to the condylomata; the use of astringent injections and cold washing, for the cure of the vaginal and uterine discharges; and in cases of the latter kind, the internal administration of tincture of cantharides. In several cases, when there existed cutaneous eruptions, the iodide of potassium was given. In no instance was any mercury administered, except in the case of the woman affected with iritis.

The local application which I have found most advantageous is the sulphate of copper. The condylomata were rubbed pretty freely with a crystal of this salt, moistened with water, every second day, and in some cases daily; and a lotion of it, containing two or three grains in each ounce of water, was kept applied by the patient. Under this treatment the condylomatous excrescences disappeared with remarkable rapidity. In the cases where there were ulcers suspected to be syphilitic, these were touched occasionally with the nitrate of silver. The patches in the mouth were repeatedly touched with the sulphate of copper or nitrate of silver, more frequently with the former, and disappeared with equal rapidity with those on the labia and perinæum.

Although the treatment in the Lock Hospital has been thus almost exclusively local, in such cases, for six or seven years, I have not remarked any tendency in the disease to recur after having been cured by this simple method of treatment; nor have the patients, although many of them have been under treatment for subsequent affections, presented any secondary

symptoms, except occasionally some of the eruptions mentioned in the previous description. The facility with which the cases under my care were cured, I attribute, in a good measure, not only to the effect of the remedies employed, but to the altered habits and circumstances of the patients. The regularity of the diet, the plain and wholesome food, the suspension of the universal habit of drinking, the attention to cleanliness, the rest enjoyed, and removal from night air, constant exposure, excitement, and fatigue, must in themselves, contrasted with the usual habits of prostitutes, tend to produce a marked effect on the diseases under which they may labour.

The observations recorded in the preceding pages have led me to the conclusion that this affection is a *primary form of venereal disease*, and that it is identical with *sibbens*.

With respect to the first opinion, I must admit that it is extremely difficult to obtain complete satisfaction, in the class of patients among whom I have studied this affection, as to the absence of any previous disease, gonorrhœal or syphilitic. Of the eleven cases which I have mentioned as having neither ulcers, gonorrhœa, nor leucorrhœa, after repeated examination and cross-questioning, I was only able to satisfy myself that the disease had made its first appearance in the form of a condylomatous tubercle, without any previous ulcer or discharge, in *five* of the patients. In three of the cases, the patients were undoubtedly labouring under a venereal affection for the first time. One of them, indeed, was under ten years of age. She presented a condyloma on the right labium, the surface of which was ulcerated, or rather vesicated, another on the verge of the anus, several patches on the tonsils, one on the lips, some of considerable size on the tongue. The disease was contracted by sexual intercourse. A companion of this girl, under eleven years of age, was similarly affected, although to a much greater extent, and in her the disease was contracted from the same source.

I was at one time strongly inclined to believe with Dr Hibbert, that this disease was "the engendered product of rank uncleanness,"* for it is certainly most frequently met with in patients of the lowest class, and is generally accompanied with profuse and neglected discharges. But the number of cases in which I have seen it where there was no such discharge, have satisfied

* Edinburgh Journal of Medical Science, 1826.

me that this is not the sole cause, although it may be admitted that under its influence the disease is fostered and developed. My opinion on this point exactly coincides with that of Dr Wallace. "The want of habits of cleanliness," he observes, "has a great influence in determining the formation of fungi, of rhagades, and perhaps of onyxis. In fact, these symptoms are often produced by the dirty habits of patients, when the opposite habits would have prevented them. I do not, however, say that they never occur except in such habits, for I have known very cleanly persons to have the condylomatous form of disease."*

The invariable affection of the mouth and throat at some period of the disease—for I am satisfied it is invariable—with the peculiar and perfectly characteristic eruption, or condylomatous patches, in itself is sufficient to point out that this disease is specific in its origin, and essentially different from any of the secondary symptoms which are known to result from the syphilitic virus, or from any thing which can be produced by filth and gonorrhœa.

To satisfy myself, if possible, of the specific character and contagious nature of this disease, I inoculated in every one of the cases referred to from the matter, which can in general be scraped from the surface of some of the condylomata, or from the ulcers which they frequently present. The result of these experiments has been different from either that of Dr Wallace or M. Ricord, between whose results there also exists a remarkable discrepancy.

Dr Wallace states, that in "two or three weeks after" [inoculation], "the seat of the inoculation swelled and became somewhat red and painful. It then desquamated, or appeared scaly. The tumidness and scalliness increased. The scales then gradually became scabs or crusts, and the spot as gradually acquired a fungoid elevation. In a few instances the scaly tubercle, soon after its appearance, formed an ulcer. On other occasions parts of the fungous elevation ulcerated, and then its surface appeared depressed, or in wells."† He adds, that the secondary symptoms followed, the skin presenting the rubeoloid, or the scaly, or the tuberculated eruption, and the mouth the superficial form of the disease.

M. Ricord states, that in 221 inoculations from mucous tubercles or condylomata, no effects were produced in any case.

* Op. Cit., p. 751.

† Op. Cit., p. 133.

On comparing the results of M. Ricord's inoculations with those of Dr Wallace, I was at first led to believe that the discrepancy was probably to be explained by the supposition that M. Ricord was not aware of Dr Wallace's experiments, or did not advert to the circumstance stated by him, that the inoculation did not take effect until two or three weeks afterwards, and that before that period he might have ceased to watch for any effects. The result of my own observations, however, is at variance both with this explanation and with the experience of Dr Wallace; for in the only cases in which my inoculations succeeded, the effect took place within one or two days.

Of the thirty-six cases referred to in the preceding part of this paper, inoculation succeeded in only four cases. In all of these the first appearance presented in the seat of the inoculation was a pustule on the second or third day, as in inoculating from a chancre. Believing that this had been the case in the first two or three experiments, I destroyed the pustule with nitrate of silver. In the fourth case I allowed the two pustules which formed to run their natural course; a scab formed, which appeared to be seated on sores depressed below the level of the adjoining surface, but without the elevated or hardened edges, or the defined circular form of chancre. They continued increasing in size, preserving the same appearance and covering, until they met each other and coalesced. On the fourteenth day after inoculation the crusts became detached, and a fungoid excrescence, having all the appearance of a condyloma, shot up from the sore. This was destroyed.

In another case, not included amongst the thirty-six referred to, inoculation produced the same effects as those last described; and the sore now presents a small fungoid elevation of the skin, somewhat resembling a condyloma. In addition to the results derived from direct inoculation, I may add, that I have had frequent occasion to remark the existence of a condylomatous tubercle on opposite surfaces of the thighs, at points exactly corresponding, and brought in contact when the thighs were approximated.

These results are as yet imperfect and unsatisfactory, but so far as they go, they are confirmatory of the observations of Dr Wallace, in as far as regards the appearances presented, although they are at variance with his results, both as regards the pustular form which preceded the scab and tubercle, and the period at which the inoculation took effect.

That inoculation took effect in so few of the cases experimented upon by me, may be explained, perhaps, partly by the fact that I selected a part of the thigh where condylomata are very seldom produced in the natural course of the disease, and partly, it may be, by my not having had recourse to any means to prevent the patient washing the inoculation immediately after it was done, to prevent its taking effect. Dr Wallace states that his inoculations succeeded much less frequently than inoculations from chancres.

The inference to be deduced from the experiments referred to, more particularly those of Dr Wallace, appears to me to afford strong corroborative evidence of the opinion which I have formed, that this affection is specific, and one of the primary forms of venereal disease.

The identity of this disease with the affection called *sibbens*, which at one time ravaged this country to a great extent, and is now generally believed to be nearly extinct, or confined to some limited localities in the west and north of Scotland, is, I think, very clearly made out by a reference to the descriptions of it which we possess. This question, or the question of the venereal origin of *sibbens*, is not likely to be encumbered now with arguments founded upon the possibility or impossibility of curing it without mercury, any more, I trust, than the syphilitic nature of any of the diseases met with in the Lock Hospital is to be doubted because they have been treated and cured there without any mercury for the last six or seven years. The question will be determined by the anatomical characters of the disease.

Dr Gilchrist, in an account published in 1765, of *sibbens* as it appeared in Scotland at a time when it was very prevalent, says, "It first appeared here in the form of a sore throat, or an inflammation of the *uvula* or *pap* of the *hawse*, as it is termed, and neighbouring parts. The tonsils were often superficially ulcerated, appearing either raw or covered with a *white slough*. Frequently there was a thrush, that is, *white specks and sloughs*, upon the roof of the mouth and inside of the cheeks and lips, which commonly showed itself at the corners of the mouth, in a *small rising of the skin*, of a *pearl or whey colour*." * * * "Sometimes there was a hoarseness."—"Scabby eruptions were often met with on the scalp, forehead, inside of the thighs, groins, and parts contiguous."—"The whole surface of the body appeared mottled or flaked, of a dusky copper colour, or dirty

red.”—“Inflammation, sorenesses, and excrescences about the fundament were frequent.”*

In an account of the disease “falsely called the *yaws* in the south of Scotland, and *sibbens* in the north,” by Mr James Hill, surgeon in Dumfries, written in 1768, after referring to the verrucæ, condylomata, and tubercles met with on the perinæum, scrotum, and various parts, and citing the descriptions of Dr Harvey, Wiseman, Turner, Dr Barrie of Cork, Van Swieten, Plenck (all whose cases, he says, are *sibbens*), and Boerhaave, to show that the distemper called *venereal syphilis* or *French pox* in France, Germany, Holland, England, and Ireland, is the same as the Scotch *sibbens*, he describes its appearance in the mouth in the following graphic terms:—“When the infection is communicated by a foul pipe or spoon, the angles of the mouth, the lips, gums, &c., are first affected. The first appearance of an ulcer on the lip, &c., exactly resembles a bit of fine white soft velvet pasted upon the skin; for it will not wipe off. But after it has eaten in for some time, it then has the appearance of a piece of the red skin cut out, and a white velvet patch put in its place. These ulcers spread broader than deep.”† To prove its identity with *syphilis*, he refers to a case of “clap” in a female, “attended with verrucæ, which she called hæmorrhoids,” and who communicated *sibbens* to nine of his own relations.

Dr Adams visited Scotland, as a “means of assisting his inquiries into morbid poisons,” for the express purpose of examining the *sibbens*, believed then, as it still is, to be prevalent only in the south-west of Scotland. The description of the patients whom he saw confirms the opinion which I have formed of the identity of the diseases. One female had lost her uvula and tonsils, her voice was affected, and, adds Dr Adams, “the loss of substance about the lips is very trifling, but the edges are covered with an opaque white cuticle, apparently newly formed.” * * * “She had at one time complaints about the anus.” Of another female whom he examined, he says, “The uvula and tonsils were suffused with a viscid mucus, and in some parts covered with the white appearance before mentioned. The soreness extends from the edge of the lips along the inside of the cheek and side of the tongue; but if there be any loss of substance, it is only at the uvula and tonsils, which appear rather wasted than ulcered.”

* Physical and Literary Essays, vol. iii. p. 154-177. Edinburgh, 1771.

† Cases in Surgery, by James Hill, Surgeon, p. 258. Edinburgh, 1772.

She had also a cutaneous eruption, of which Dr Adams says: "These are small elevations above the cuticle; she showed me some on her legs and arms, which *seemed* pustular, but were quite dry."* Other cases are referred to of a similar kind, from a review of which he arrives at the conclusion, that sibbens is different from the venereal disease. Its prevalence in Scotland is explained by Dr Adams by reference to the habit, which, he says, was peculiar to some districts of Scotland in those days, of smoking out of a common pipe—of "using a single pipe for a whole family, and almost for a whole village"! The tradition regarding the origin of the disease in Scotland was, that Cromwell's soldiers had introduced it and the smoking of tobacco at the same time, by means of their pipes.

The idea generally entertained of this disease by, I believe, all who have written on the subject, in common with Dr Adams and the writers referred to, that it is communicated by kissing, or by drinking out of the same vessel or smoking out of the same pipe, I am inclined entirely to discredit. I believe it has arisen, along with the idea that this is a disease which chiefly or solely, in some instances, affects the mouth, from the fact that in every case the mouth is more or less affected at the same time as the genital organs. The affection of the mouth is one of the constitutional effects of the disease, to be observed, I believe, in every case of condyloma at some period of its course. And I have little doubt that the erroneous ideas generally entertained regarding the nature and mode of propagation of this disease, have originated in the desire on the part of those affected with it to conceal the real origin of their complaint. Had the genital organs been examined in every case where the mouth was affected, I believe the medium of contagion would have never been suspected to have been merely kisses, tobacco pipes, or common drinking cups.

Mr Carmichael, believing with Dr Adams that this disease was endemic in Scotland, particularly in the western part of it, conjectured that it must be frequently transmitted to Ireland, and accordingly he recognised its frequent, almost daily, occurrence in the Lock Hospital of Dublin. These were undoubtedly cases of condyloma, and not more peculiar to Dublin, if the account given by Dr Wallace of his exanthematic syphilis is correct, than to the west of Scotland.

* On Morbid Poisons, by Joseph Adams, M.D., p. 183-8. London, 1807.

The limits of this paper prevent me from endeavouring to trace the identity of this disease with the venereal affections described by the older writers, but I cannot avoid remarking that one can scarcely refer to any old work on syphilis without a conviction that it has been very generally described and confounded with syphilis. To take *e. g.* at random a single observation from a small work by Dr Saunders, to which is appended the tract by Professor Plenck on the action of mercury on the salivary glands: "A child of a year and a half old, whose parents were not venereal, had for half a year condylomata about the anus, rhagades, and small ulcers in the angles of the mouth," &c.* One can hardly resist the conclusion, that a more careful examination of the subject will show that sибbens is as familiar as syphilis, and as little peculiar to certain localities, and that it has been overlooked or ascribed to the secondary effects of that disease.

The most recent account of sибbens, as it prevails in Ayrshire, Galloway, and Dumfriesshire, is contained in a very interesting paper by Mr Wills of Cumnock, published in April last,† which I have just seen for the first time. On perusing it I was gratified to find all my preconceived opinions, regarding the identity of the *condyloma*, daily met with here, with the *sibbens* of the west, confirmed and verified. The appearance of the tubercles, or condylomata, on "the tongue, cheeks, angles of the mouth, anus, groins, and genital organs," and of the cutaneous eruption or secondary symptoms, given by Mr Wills, is exactly applicable to the cases daily seen in the Lock Hospital of this place. While I differ from him regarding the necessity for the use of mercury in the cure of this disease, and regarding the mode in which the affection of the mouth is produced, his views entirely coincide with mine on most of the other points of interest. "Between sибbens," he says, "and the venereal condyloma, there does not appear any difference; and I will be much astonished indeed if, on farther inquiry, the latter is not found to be often communicated by the mouth. Whether sибbens may have wandered from our mountains to the cities, or venereal condyloma from towns to us, is not for me to decide."

Mr Wills recognises the resemblance between sибbens and the disease described by Mr Johnson as venereal condyloma,

* A New and Easy Method of giving Mercury, &c., by William Saunders, M. D., p. 83. London, 1763.

† London and Edinburgh Monthly Journal of Medical Science, April 1844, p. 282.

in such terms as to satisfy me that little remains to be done to establish the identity of the two; although I am still inclined to believe that the idea of the Cumnock disease being propagated by contact of the lips or tobacco pipes is fanciful, and founded upon a limited view of the constitutional symptoms of the affection. “Mr Henry James Johnson, in the April number of the Medico-Chirurgical Review for 1834, in giving an account of this fungoid venereal sore, under the name of venereal condyloma, has presented so minute and faithful a description of sibbens, as it at present exists in this part of Scotland, as almost to make me doubt if that gentleman had not his model from Ayrshire, with this difference, that what he calls a secondary affection is our primary. This is easily accounted for. Mr Johnson has been in the habit of seeing the disease in the form it assumes when *got by coition*; we again commonly meet with it as *caught by contact of the lips*, or through the medium of tobacco pipes, &c. Sibbens, however, are frequently communicated by coition; and then the disease has all the characters of venereal condyloma.” And again, “Their appearance on the female parts of generation is so accurately described by Mr Johnson, that I would only be copying that gentleman’s words in attempting a description; but I may take this opportunity of stating, that sibbens caught by coition are not always accompanied with gonorrhœa, and are oftener without than with that discharge, particularly in males.”

From the preceding observations and experiments, I think myself warranted in deducing the following conclusions as highly probable if not completely substantiated:—

1. That condyloma is a primary form of venereal disease—specific in its characters and its origin, and distinct from gonorrhœa or syphilis.

2. That it is identical with the disease described under the name of sibbens or sivvens.

3. That it is communicable by contagion and inoculation.

4. That the difficulty of producing it by direct inoculation, and the similarity of the affection of the mouth in cases produced by sexual intercourse with that in which it has been supposed to be produced by contact of the lips, &c., render it probable that the affection of the mouth is always a constitutional symptom resulting from a venereal origin.

5. That it is curable without the use of mercury.

Before concluding, I take this opportunity of acknowledging

my obligations to Mr Benbow, the present active and intelligent house-surgeon to the Lock Hospital, for the efficient assistance which he rendered to me in the investigation of this subject, in the cases referred to as reported and experimented upon there,