III. An Account of a præternatural Tumour on the Loins of an Infant, attended with a Cloven Spine. By Dr. Rutty, Fellow of the Co'lege of Physicians, and of the Royal Society.

HE curious Mr. Ruysch, in an Observation on the Spina Bistida, takes notice that other Writers have describ'd it to be cloven into two equal parts longitudinally, as Butchers split the Back-bone of an Ox or Sheep; whereas out of ten Subjects, which he had an opportunity to examine, not one prov'd to be in that manner, the Body of the Vertebræ being entire, and the Acute Processes only divided. Pretty near this Description, is the Spine to be treated of, and I the rather trouble this Society with it, because it don't appear by the Transactions, that it has as yet come before us.

The Back-bone is of a female Infant fix Days old; whose Mother, when seven Weeks gone with Child, upon a fright occasion'd by her Husband's falling from a Horse and very much bruising his Loins, gave the *Embryo* this injury; but notwithstanding she went out her Time, and the Child was full grown.

There appeared upon the region of the Loins, in the same place where the Father receiv'd his hurt, a Tumour about the bigness of a small Turnep, with a broad Basis, around which the Skin was discolour'd, as by an Ecchymosis, but it grew immediately from thence pellucid, like a Vesicle rais'd by Cantharides, and continued so throughout, except just at its Apex, where was a Substance like a Fungus. This Bladder was fill'd with

with a Liquor, which in Scent and Colour resembled the true Urine: insomuch, that upon strictly examining the Linnen stain'd by what issu'd from hence, with that from the Pudenda, we cou'd perceive no sensible difference, and concluded there was a Communication between the left Kidney and the Orifice, into which the Surgeon's Probe pals'd obliquely upwards, about an Inch. Of the same opinion was Dr. Pellet, then pre-Whether the same Similitude may hold, betwixt the Urine and this Liquor, in all Cases of the like Nature. I have not had opportunites to observe: but as Mr. Ruylch has taken no notice of it, in such a Number of Subjects, that have been before him, I am apt to think. that it does not; being easily persuaded, that if it did, it would not so often have escap'd his inquisitive Re-I cou'd have wish'd however, that this Fluid had been fav'd; to have try'd by Experiments, in what other Qualities, besides the Scent and Colour, it might correspond with the Urine; which wou'd have given us a farther Infight into the Cause of this Affinity between them, in the particular instance now before us.

Upon opening the Body, where were present Dr. Pellet, and Mr. Stephens an ingenious Surgeon, the Kidneys, contrary to Expectation, were perfect, and did not any way communicate with the outward Orifice.

But upon clearing away the Fungous Substance, which took up all the Suleus or Hollow of the Spine, we found where the Perforation tended; a long Probe easily passing up the Channel, which contains the Medulla Spinalis. Throughout this Fungus were dispers'd a great many endings of small Nerves, from whence distill'd this, as it were, Urinous Liquor, which occasion'd the Tumour: the rest of the Medulla was more compact, and fill'd the Cavity of the Spine; tho' in some Subjects it has been wasted to such a Degree, that by blowing

into the Orifice you may inflate the Dura Mater; as was done by Mr. Dobyns a Surgeon, in a Case of this Nature. The Coat of the Tumour consisted at its Basis of the Cuticula, Cutis, and Membrana Adiposa: the two first of which forthwith terminating, the Cuticula on'y was continued; immediately under which appear'd the Muscles and Fungus above mention'd. In this it differs from those of Mr. Ruysch, which received their Coats from the Membranes that cover the Medulla: as likewise from those taken notice of by Tulpius, which borrow'd theirs from the Peritoneum, as he says; tho' by his own Description, it is more likely they proceeded from the same Membranes.

These Tumours constantly attend the Spina Bifida: infomuch, that when any of them present themselves on the Loins or Back of a new-born Infant, we have good grounds to pronounce This to be the Cause; but we may be positive in it, if the Child can't move its lower Limbs; the want of which motion is an infallible Indication, that the Medulla Spinalis reaches no farther than the Swelling, whereby the Nerves are not distributed to those Parts. They appear differently in different Subjects. In some the whole Tumour is Opake; which proceeds from small Filaments of Nerves propagated in great numbers throughout its Coat, and not from the thickness of the Skin, as Russel In others it is pellucid; and then the Mewill have it. dulla terminates at once at the Aperture of the Spine, and does not shoot out into any Ramifications. before us is a Composite of both Species, the greater part of which was pellucid; the less, viz. the Apex, opake.

The Back-bone itself, you may observe, is not clest, but has its Vertebra, with their other Processes entire, and is only desective in its Spines or Acute ones. But

that Portion of the Vertebra, which should make an acute Angle, from whence their Spinal Processes naturally arise, in order to form the Specus or Passage for the Marrow, instead of that, gapes and lies almost in a strait Line on each side; whereby the Medulla is defrauded of its usual Guard from external Injuries. This Desect begins at the third Vertebra of the Loins, and is continued to the end of the Os Sacrum: which last is very extraordinary, it scarcely ever happening to this Bone; the reason of which I take to be the more than ordinary Compactness of its Vertebra, whereby it is less liable to be injur'd by any Impression. For we observe, that in Adults they grow so close together, as to unite and form one large and solid Bone.

As the Case before us is a Vitium Conformationis owing to the Mother's Imagination, so the Same sometimes is occasion'd by Matter lodging upon the Spine, and eroding the Vertebre by its Acrimony: but then you find a carious Bone, whereas in these praternatural Cases, there remain no such Footsteps. This was obferv'd in the Body of the late Lord Peterborough, as related by Mr. Comper: Upon the opening of which, He found a large Tumour, from whence flow'd a brownish colour'd Matter; and under it, the upper and fore part of the ninth, and the lower part of the eighth Vertebra of the Thorax were confumed and gone, the Medulla Spinalis being cover'd with its Membranes only. This gave rise to those Symptoms in that morbid Case, so nearly resembling the above recited in this prkternatural One.

It is manifest from what has been said, that these Cases are incurable, and must in a little time kill the Patient. But it is almost immediate Death to open the Tumour; which every Surgeon will naturally do, that has not seen or read concerning it: the Fluid seeming

P 2

to require a Discharge. It is for the sake of those Gentlemen that I have taken upon me to describe it, who possibly may not have the above-mention'd Authors in their Hands; the only Ones that have observed it with any tolerable Accuracy.

IV. An Account of Two Observations in Gardening, upon the change of Colour in Grapes and Jessamine. In a Letter from Mr. Henry Cane.

Hillingdon near Uxbridge, Oct. 31.1720.

my forts of Fruits, amongst other forts, I have three or four of white Muscadine Grapes, very distinguishable by their Tastes, one of which pleased me above the rest; a Cutting of which about six Years since I planted against a Wall, on an Eastern Aspect, where it has the Sun from its rise till half an hour after Twelve. The Soil is a stiff Clay, but to make it work the better, I meliorated that, by mixing some Rubbish of the Foundation of an old Brickwall, where it now grows. In January last was twelve Month I pruned it, and the Figure was thus,

Left Hand T Right Hand Black

At time of Year it shor at both Hands about twenty two luches of a side, before it came to a Joint; that on the Right was a very luxurious exuberant Branch, as big as the body of the Tree, the other side not half so thick or big, and the Leaves on the right were as big again as the other