









M. Vander Gucht, Scu

II. *A Letter from Mr. William Cowper, giving an Account of a very large Diseas'd Kidney, found on the Dissection of a Lady, with the Symptoms of the Disease before her Death, and an Explanation of their Phænomena.*

S I R,

Since you were pleas'd to tell me the Observations I lately had an opportunity of making, in Dissecting a Morbid Body, would not be ungrateful to the *Royal Society*, I have thought my self oblig'd to recollect the best Account I could of that Case.

I must confess, to many of those few opportunities I have had in Dissecting Morbid Bodies, have escap'd my committing them to Writing; tho' I have been always satisfied they are the best Instructions to the Diagnostick, as well as Prognostick part of Medicinal Practice.

I know some Men have been very industrious, in disparaging the Attempts of others in their Enquiries into Humane Bodies; which I am apt to think either proceeds from a Laziness of their Tempers, or an unaptness to Anatomical Disquisitions.

Tho' the following Case does not furnish us with many unobserved Remarks, yet there happened divers Symptoms some time before Death, which are commonly taken to arise from other effects, and may deserve our Consideration.

The Subject of our present Observations was a young Gentlewoman not Married, who about eight Years before her Death found some small pains in the Lumbal Regions, and sometimes made blackish Urine. If she at any time used any Motion, the Pain would encrease; commonly finding most ease when her Body was se-

date. In this Indisposition her Physicians in the Country prescribed Astringent Medicines. About two years after, the Lumbal pain encreast on the left side ; and a great Weakness, loss of Appetite, ill Digestion followed. Of these Indispositions she recovered again, and was in all appearance Healthful, and so continued near two Years and an half : about which time they returned again, together with black Urine, and frequent incitations to Vomit ; but of these Disorders she had some intermissions, and so she continued about two Years. *Christmas* last she began to be afflicted with violent Pains, and her Urine appeared very black : Of these extravagant Pains she was much eased, with the use of Common Clysters, but never the less continued much indeliberated. The beginning of *May* last the Pains encreast about the Regions of the Loins and Pubes, and was once or twice surpris'd with the falling down of a weight within her (as she express'd it.) When thus tormented she took large Doses of Opium, which did somewhat alleviate the extravagancy of Pain. The ordinary Position of the Trunk of her Body was more enclining to be erect then bending forwards, contrary to what we find in those troubled with the Stone in their Kidneys or Ureters, except those in whom the Kidney is intumified. She complain'd of a Stupor or Numbness in the left Region of the Loins, whilst very acute Pains affected the Viscera of the lower Belly, especially those placed in the Hypochondria. The Pains on her Pubes encreast near the time of her Death, and a great Stupor affected the Left Thigh, which she was scarce able to draw after her, much less to put forwards in walking.

The Day after her Death I was called to Dissect her Body, which was very much emaciated. A large Tumor appeared in the Left Iliac, extending it self to the left

left part of the *Epigastrium*, even to the *Hypocondrium* of that side. After a Division of the Common and Proper Integuments of the *Abdomen*, together with its Muscles in a Crucial Form, and the *Viscera* of the lower Belly exposed; the *Omentum* appeared very thin and Membranous, cleaving to the left Kidney, which was very much intumefied, and caused that appearance of a large Tumor above-mentioned before Dissection; this Kidney had taken place of the Spleen, and touched the bottom of the Stomach, and in such manner prest on part of the Colon, as very much lessened the Diameter of that Gut. The Stomach and small Guts were somewhat distended with Wind; the former appeared very loose, as if its proper Tone was much relaxt. The Intestines being turned to one side, the *Pancreas* appeared a little indurated. Looking towards the Diseas'd Kidney of the left side, I found the left Spermatick Vein very much extended, between the Kidney and the *Ovarium*; the upper part of that Vein being compress'd by the superincombancy of the lower part of that Kidney; insomuch that the Trunk of this Spermatick Vein was very much lessened, immediately before it enters into the left Emulgent Vein. In freeing this Diseas'd Kidney from its many adhesions to the Neighbouring parts, its outward Membrane happened to burst in two or three places, whence issued a large quantity of Grumous Blood. This Kidney weighed five Pounds, and the other but five Ounces, which was of a common size, and no ways disorder'd. The outward Surface of this diseas'd Kidney, is express'd in the annex't Figure. By the Distension of the Membranous parts of the Kidney it self, its Veins were in a great measure compress'd. Its *Ureter* FF was large through the intumescence or thickening of its sides, whereby its Cavity was streighten'd. In a division made, by cutting into the Body of this

swell'd Kidney, its inside appeared like that of a *Schirrus* or Boyl'd Liver. I found two or three large Cells, *B*, filled with grumous Blood, which proceeded from an Eruption of some Blood Vessels before Death, which I am apt to think might Allaram the Patient with the Apprehensions of some Weight falling down (as she exprest it.) The rest of the *Viscera* of the lower Belly appeared in no ill state, except the *Vagina Uteri*, in which, near the *Meatus Urinarius* was an Ulcerous Appearance, attended with a Mortification. The left *Psoas* Muscle was very much lessened by the Compression of the lower part of that Kidney, and the Nerves distributed to some parts of the Thigh, which pass through that Muscle, were exposed to view. Nothing disordered appeared in the *Thorax*, but what is commonly observed after Death in all Chronical Diseases (*viz.*) a *Pollipus* in each Ventricle of the Heart, and great Blood Vessels, of which I have commonly observed the right Ventricle and the Veins to be furnished with the largest Pollipuses, especially the *Vena Cava* and right Auricle; the latter of which I very lately found completely distended with a *Pollipus*, or Coagulation of Serum, in the Body of a Boy who Dyed with a *Hydrops Thoracis*; in which Case the Symptoms of Sighing and difficulty in Inspiration, I have always found remarkable. I can't but think the slow return of the Blood by the Veins, is the immediate Cause of the Coagulation of the serous part of the Blood which frames these Bodies, which from the Figure (which they acquire from the parts they are lodged in) are called *Pollipi*: Hence it is the Sistle of the Heart prevents their being framed so large in the left Ventricle and Arteries, as in the Right and the Veins; the Blood being carried through the former with much greater force then the latter; tho' in the left Ventricle of the Heart and Arteries too I
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have sometimes meet with *Pollipuses* very large; but I never yet but found the Right Auricle and Ventricle to be furnished with the largest.

Blackish Urin, I believe is commonly observed in many Feverish Indispositions; where the Blood is either partially obstructed in its return by the Veins of the Kidneys, or through its great Vellocity in passing the Kidneys; when some parts of the Globules of the Blood also pass out at the Urinary pores in the sides of the Blood Vessels, and those Globules being broken, exhibit those blackish Bodies which appear in the Sediment of the Urine. In these Cases the Serum of the Blood passes off with the Urine; for by evaporating such Urine by heat, as in a Spoon over a Candle it will lactes and become thick like the true Serum of the Blood, as it appeared in examining the blackish Urine of a Child, in company of my Friend and Learned Physician Dr. *Hoy*. Obstructions commonly begin in the most capillary Vessels first; as I have frequently observed in viewing the transparent Finns of divers living Fishes with my Mycroscope: And tho' it has been hitherto commonly supposed, that Veins and Arteries are all equally lessened at their extremities; yet I am of Opinion, (and I believe can give Ocular Demonstration of it too) that the extremities of divers Blood Vessels, are much larger than their Companions: Hence an Account may be given of the partial Circulation of the Blood, and yet Mortifications not necessarily succeed, as in the present Case: For the Kidney here being vastly extended, which proceeded from a Retardation of the Re-fluent Blood and Lympha; it is conceivable that the Obstructions began in the Membranes, which compose the Parities of the Trunks of the Veins and Lympheducts, whence an Intumescence necessarily follows; and the Cavities of those Vessels are lessened, consequently the

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Refluent Blood or Lymph not being dewly discharged ; those larger Vessels are necessarily distended between their intumefied sides with compressed Cavities, and their extremities at the Arteries. Thus we may apprehend how a part remains intumefied, under a partial Circulation, and may (when no ill Juices are joined with the Blood and Lymph) continue so for some Months, nay Years, as in the present Case, without any Disorder to the Patient ; but on such Motions of the Body, as accelerates the motions of the Blood, at the extremities of the Vessels, when there is a greater quantity of Blood imported than can be discharged by the Veins ; whence a sudden intumescence arises and pains necessarily follow. What Astringent Medicines avail in such like Cases, is difficult to conceive ; but Aperitives might be serviceable. Loss of Appetite, ill Digestion, &c. attend Nephretical Cases, by the Nervous communications of those of the Kidney with the Stomach &c. whence the Tone of that part, as well as the Intestines, especially the *Colon*, becomes vitiated, and subject to frequent disorders, especially Vomiting and Cholick Pains. By Tone of that part, I mean, that proper distribution of the Nervous Ramifications within the part when extended, as in this Case and intestinal Ruptures, as they are called, and the like : Or when the Nervous Ramifications are Relaxt, as in Paralytical Cases, &c. The Tone of the part necessarily becomes vitiated, in as much as its Nervous Distributions are disordered. The Contents of the Stomach and Guts not being dewly carried on, are apt to ferment ; the contained Air being rarified by the natural heat, the Intestines or Stomach (not being able to resist the enlargement of that rarified Air) gives way, and becomes very much distended ; whence Colick Pains and Disturbances in those parts sometimes arise, as I am apt to think
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in these Cases. Hence by procuring the Evacuation of this contained wind, the afflicted are eased, as by giving of Clysters, &c. It seems a task too tedious for my present enquiry into what Authors have said concerning the Operation of Opium, and how it procures ease in this and such like Cases; wherefore I shall only relate what occurred when with an Ingenious Person and my self, we examined a Solution of Opium with my Microscope; the Particles of the dissolved Opium appeared like fringed Globules. These Particles we were inclined to think (if so conveyed to the Mass of Blood) might so intangle in its Serum and thicken it, as to occasion a retardation of the Globules of the Blood, and hinder their progressive Motion, at the extremities of the Blood Vessels: Hence the Blood not passing with its wonted velocity, does not so suddenly extend those enlarged Vessels, which have a considerable share in the intumescence of the part; but by making the Globules of the Blood pass more calmly, might prevent their sudden efforts, or intrusions into those distended Vessels. The intumefied Kidney not only compressed the left spermatick Vein, whereby the Refluent Blood of the *Uterus*, *Vagina* and parts adjacent, was in some measure retarded, but some of the Nerves of the *Vagina*, and those of the *Pudendum*, were also compressed thereby; hence Pain arising from Inflammation, thro' a retardation of the Blood, at the extremities of the vast number of Blood Vessels, about the *Meatus Urinarius*, at its egress in the *Vagina*; whence Exulceration and Mortification followed. The Magnitude of this Kidney prevented the bending forwards of the Trunk of the Body, whence it was she was obliged to keep it erect. The lower part of the left Kidney, had so prest on the left *Musculus Pfoas*, as scarce a third part of its proper bulk remained; whence necessarily followed a great debilitation

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in drawing the Thigh forwards : she had a great Stupor in that Thigh, through a Compression of the Lumbal Nerves, which lay exposed immediately under the intumefied Kidney.

I am apt to think, Cafes not unlike this often occur in the Practice of Physicians; and are commonly taken to proceed from a Stone or Stones in the Kidneys or Ureters, and might very well impose on sagacious Practitioners : But I conceive that unusual Posture, in such like Cafes, as keeping the Body erect, seems to distinguish it; together with an indebilitation of drawing the Thigh and Leg forwards. If these Symptoms do not conjunctly occur, yet by this we may be admonisht, that Nephritical Disorders are not, as is commonly thought, owing to Stones, whither in the Kidneys or Ureters.

Bellonus Epidem, p. 220. mentions a Case not unlike this, of an intumefied Kidney, *Mercatori Bourlon dolores implacabales ad Regionem Lienis & fere infra Umbilicum pene. Tumor quidam percipiebatur, tandem interiit. Non credebant dolorem esse Nephriticum & tamen erat. At situs doloris & partis decipiebat, Aperto Cadavere inventus est Ren insignis loco dimotus ad regionem lienis aut natura aut aliqua alia vi (si credere fas fit) detrusus, sic imposuit valde Medicis. Idem contigit Cardinali à Guiffa Curabant eum splenicum pro Nephritico. Ren quadruplo major erat quam à Natura esse deberet.*

Cabrolus Observ. XXVIII. at the latter end of his *Alphabetum Anatomicum*, tells us of a Kidney he found impostumated in a dead Body, which weighed fourteen Pound, containing much matter within a thick Cystis. Some time after he says he was called to a Patient, afflicted with great Pain in the Region of the Loins, which was supposed by his Surgeons and other Physicians

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ans, to proceed in great part, from a Stone in the Kidney : But *Cabrolius* on the contrary affirmed, it was an Abscess in the Kidney. The Patient very earnestly solicited him to open it, to which *Cabrol.* consented, but the Matter did not flow till two Hours after the first Incision : Afterwards it continued to flow daily in great quantity ; so that in two or three days time at least, a large Basin full of Matter was discharged. Thus the Flux of Matter continued for a Month: But afterwards by applying proper Remedies of Plasters, Unguents, and Injections to cleanse the Ulcer, a Cicatrice was made, the Patient became well.

An Explanation of the Figure.

- A *The upper part of the Kidney, which touched the bottom of the Stomach and Spleen.*
 B *The lower part consisting of divers Protuberances; the insides of which were distended with extravasated Blood.*
 C C *The Blood Vessels of the proper Membrane of the Kidney distended.*
 D *The Fat placed at the entrance of the Vessels into the Kidney.*
 E E *The emulgent Arteries and Veins cut off.*
 F F *The Ureter very much thickned in its sides, and cleaving to the lower part of the Kidney.*

Thus I have given you an Account of a Case, which at first I did not think would have taken up so much Paper ; but if any thing contained in it should give any satisfaction, I have the end of my Design.

Yours, &c.

