

PARTICULARS
OF
A CASE
IN WHICH
A VERY LARGE CALCULUS
WAS REMOVED FROM THE
URETHRA OF A FEMALE
WITHOUT OPERATION;
WITH EXAMPLES OF ANALOGOUS CASES.

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I EXHIBITED some time since, at one of the meetings of the Society, a very large calculus, which had been removed from the urethra of a female without operation, and stated the few circumstances of the case which were then known to me. I have since made particular inquiries into it, both of Mr. Hopké, of Ratcliffe Highway, the medical gentleman who attended the patient, and of her friends: and I have the honor to lay the result before the Society.

J. M. was first observed, at about the age of seven years, to pass bloody urine, after considerable exertion in jumping. This she continued to do occasionally, up to the time of her marriage, which took place when she was about twenty; but she never complained of pain in micturition, and her general health was at all times very good. She became pregnant, and at about the seventh month, began to have great difficulty in passing her water, which lasted till her delivery, and then ceased. The urine was not tinged with blood; but she had some discharge of a purulent appearance, which was suspected to be from the vagina, and to arise from gonorrhœa. It ceased with the dysuria, but its source was not ascertained.

In a second pregnancy, she was delivered of twins at seven months, and soon afterwards became a third time pregnant. During the three last months of her third pregnancy, she had great pain in making water, and the purulent-like discharge returned, and was attributed, as in the former instance, to gonorrhœa. She had a very good time, but could never afterwards retain her water, which she had, up to this period, always been able to do. From this time she was almost continually affected with considerable pain in the region of the bladder, which rendered large doses of laudanum necessary to procure her relief. The discharge was diminished, but there was always a considerable deposit of a purulent appearance in

the urine, as was observed likewise to have been the case in her third pregnancy.

She now passed, with temporary relief, several substances of more than half an inch in length, and described as resembling the fur from the inside of a tea-kettle. She still continued to suffer much pain, and in one of her severe attacks, Mr. Hopké found, by a probe, that there was a small calculus in the urethra very near the external orifice, which he removed without difficulty by means of a pair of forceps. It was about eighteen grains in weight, was rather flat, and was somewhat of an oval form, having the longest diameter rather more than six-eighths of an inch in length, and the shortest about five-eighths. He found by means of a probe introduced into the bladder, and also by the finger introduced into the vagina, that there was a very large stone in the bladder.

The relief obtained by the removal of the small calculus was only temporary, the enuresis continued, and she was liable to frequent and severe returns of pain. In about half a year afterwards, the stone was felt by the patient advancing into the urethra, and was found by Mr. Hopké, within a few days of this, to have advanced to very near the extremity of the urethra, which was much dilated, and admitted the stone being seen in it. On examination per vaginam, he found the calculus sticking in the urethra, but there was no opening

between the urethra and vagina; and he remarked at the time, that if there had been such an opening, he would have felt himself warranted in enlarging it, for the purpose of removing the stone. In about eight days, he again saw the patient, with Mr. Headington, Surgeon to the London Hospital; when that gentleman, by means of his two fore-fingers, removed the stone without difficulty. Mr. Headington satisfied himself, by careful examination, that no communication existed between the urethra and vagina.

The patient was greatly relieved by the removal of the calculus, her general health improved, and the catamenia, which had not appeared from the time of the third pregnancy, in two months returned, and continued to do so at the proper intervals. The purulent discharge ceased, but she still continued to pass her urine involuntarily. In two years, she became again pregnant; and she suffered much during her pregnancy, from what she described as the pressure of the child upon the os pubis. During the latter months, she was affected with considerable cough and spitting. She had a good time, but was supposed by her friends to have got cold soon after delivery; for the cough and expectoration increased, the latter amounting to a quart in the day. There was but little lochial discharge, she suckled the child for several days, but she gradually lost her milk; her strength became greatly reduced, and she died on the

25th of December, 1813, three weeks after her delivery, in the 28th year of her age. She passed, without difficulty, within the last fortnight of her life, several portions of the same fur-like substance which are mentioned as having come away subsequent to her third delivery. There was no examination after death.

The calculus which was removed from this patient, is of an irregular surface, and of a flattened oval shape, having two little rounded projections at the extremity by which it passed from the urethra. In weight is 3 ounces, $3\frac{1}{2}$ drachms Troy; it is $3\frac{1}{8}$ inches long, 2 inches broad, $1\frac{7}{8}$ inch thick, and $7\frac{3}{4}$ inches round in its larger, and $5\frac{1}{2}$ inches in its smaller circumference.

It is composed principally of uric acid, disposed in close concentric lamellæ, having no perceptible nucleus; and a considerable portion of its surface is covered with a mixture of phosphate of lime, and ammoniaco-magnesian phosphate. This covering is thickest at the extremity by which the calculus passed from the urethra; and the projections are made up of it entirely. A drawing of it is annexed*.

There are several instances on record, of very large calculi having been removed from the female

* Vide Plate 4. fig. 4.

bladder without operation ; but the most remarkable are contained in the Philosophical Transactions. In the 12th Volume of that work, page 842, George Garden, of Aberdeen, gives an example of a female, who passed four stones of an unusual bigness, one of which measured more than five inches about the one way, and four the other.

In the 15th Volume, page 1271, Dr. Wallis communicated from the Philosophical Society of Oxford, an instance of a calculus, the compass of which was $5\frac{1}{2}$ inches, the length $4\frac{3}{4}$, and the weight 3 ounces avoirdupois, which was removed, without operation, from a lady of 63 years of age.

In the 17th Volume, page 817, Dr. Molyneux gives the case of Margaret Plunket, aged 60, who passed “ by the help of nature alone, without the use of remedies, or any forcible means “ whatever,” a stone resembling a flattened pear, of $7\frac{2}{10}$ inches in its circumference, the longest way, $5\frac{3}{4}$ inches where it was largest, and 2 ounces, 2 drachms, 1 scruple, and 6 grains weight, Troy. It was three months lodged in the urinary passage, during which time she suffered great pain, constant strangury, and a perpetual dropping of her water, which last symptom continued after the removal of the stone.

In the same paper Dr. Molyneux states, that

P P 2

Mr. Proby removed, by means of slight dilatation only, a stone of $1\frac{5}{16}$ inch long, and $\frac{1}{8}$ broad, from a girl of 6 years old; and one of $1\frac{1}{16}$ long, and 1 inch broad, from a girl of 10 years old.

In another paper published in the 20th Volume, page 11, the same gentleman informs us, that the method of dilatation likewise succeeded in removing a stone, of very nearly 2 inches in length, by about $\frac{7}{8}$ of an inch in width, from a girl of 11 years of age.

Dr. Beard, in the 34th Volume, page 211, communicates the history of a female of 63, who had been long afflicted with symptoms of stone in the kidney, and afterwards in the bladder. She suffered much from pain, and one day, after having experienced an "uncommon weight and forcing," she brought away, "with a noise which very much surprised the whole company," a stone of $7\frac{1}{2}$ inches in its great circumference, $4\frac{3}{4}$ inches round at the thickest place, and $4\frac{7}{8}$ inches in length on the convexity.

In the 42nd Volume, page 363, Dr. Leprotti, Physician to the Pope, gives the instance of a calculus of $3\frac{1}{16}$ inches long, $1\frac{1}{2}$ inch wide, and 1 ounce, 17 pennyweights, 4 grains Troy, in weight, having been discharged from a female of 50, who had long suffered under difficult mictu-

rition. The escape of the stone was preceded by a discharge of 3 pounds of blood.

The late Dr. Heberden, in the 55th Volume, page 128, communicates, on respectable testimony, the case of Elizabeth Coe, a woman of 67, who, after having been afflicted for 11 or 12 years with symptoms of stone, voided without much pain a calculus of $3\frac{1}{2}$ inches in length, $4\frac{3}{4}$ round, and 2 ounces, 2 drachms, and 24 grains Troy, in weight. For two or three days previously, she passed blood.

In most of these cases, as well as in that which I have laid before the Society, an incapacity to retain the urine, continued ever after the removal of the stone; and hence it has been thought, that the parietes of the urethra, in all such cases, are injured by ulceration, which, by making an opening from this tube into the vagina, facilitates the exit of the calculus. This effect is, I believe, not an unusual one; but enuresis may be fairly expected to be produced without it, solely by the injury done to the neck of the bladder and urethra, by the long continued distention of a large and hard substance. That no such communication had taken place in the present case, there is satisfactory evidence; and when we consider the shortness of the female urethra, the thickness of its parietes, the want of resistance from contiguous parts, and the facility with which it has

in many instances been distended by mechanical means *, it is the less to be wondered, that the long continued pressure of a calculus in the female, has often produced a sufficient dilatation for its removal. As a point of analogy on this subject, we have the great dilatability of the biliary ducts, evinced by the magnitude of the concretions which have passed through them into the duodenum†. The practical application of these facts, viz. that the operation of lithotomy may, in many instances, be superseded in females, is an important one, and has been long acted upon in surgery.

* Mr. Thomas has recorded one of the most remarkable instances of the dilatability of the female urethra, in the first Volume of the Transactions of this Society.

† The present Volume contains an example, also by Mr. Thomas, of the discharge of a biliary concretion of uncommon dimensions.

