TUMOUR IN THE BLADDER REMOVED BY PERINEAL INCISION.

COMPLETE RECOVERY.

BY

PROFESSOR G. MURRAY HUMPHRY, M.D., F.R.S.;
SURGEON TO ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

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W. N—, æt. 21, light complexioned, healthy looking, was admitted into Addenbrooke's Hospital, Cambridge, on September 17th, 1877. Six weeks previously he began to feel pain at the root of the penis after micturition, and the desire to pass water became frequent. At the time of his admission there was, in addition, blood in the urine after any exertion; but this subsided completely, or nearly so, when he remained in bed. He several times made the attempt to get up; on his doing so, however, the blood invariably reappeared, and the other symptoms were increased. Occasionally the flow of water suddenly stopped during micturition. There were pus and blood-corpuscles in the urine, also crystals of oxalate of lime, and epithelial scales, but no casts from the kidneys.

I sounded him on two or three occasions, but could not discover a calculus or obtain any other information as to the nature of the disease. The sounding was always followed by bleeding. Under treatment the oxalate crystals disappeared, but no improvement in the other symptoms took place. On

the contrary, they became more severe, especially the pain and straining which were relieved only by opium. A flexible catheter was left in the bladder, but it could not be borne. A firmish mass could be felt above and behind the pubes and from the rectum ; it appeared to occupy the position of, and be connected with, the bladder. The patient wasted, and his sufferings were so great that I determined to make an incision into the bladder, for the purpose of ascertaining the precise nature and situation of the disease, and of taking any further steps which might offer a prospect of relief. If the disease were merely inflammatory and ulcerative, a free exit for the contents of the bladder might prove beneficial. If, as there was much reason to judge, a growth had taken place into the bladder, the operation would do no harm, and there might be a possibility of removing the growth.

Accordingly, on October 17th, I cut into the bladder on a staff introduced through the urethra, making the usual incision for the lateral operation of lithotomy, and, introducing my finger, found the bladder occupied by a firm mass, about the size of an orange, with a ragged surface. It was attached by a pedicle, as thick as my finger, to the interior of the bladder near the orifice of the right ureter. Partly with the finger and partly with forceps, I contrived to tear through this pedicle, and then extracted the detached mass with lithotomy forceps. I next, with my finger-nail, scratched out what I judged to be the root of the polypus, taking care not to perforate the coats of the bladder, for fear of admitting the urine into the cellular tissue of the pelvis. The growth was of moderately firm structure of the kind called fibroma or fibro-sarcoma.

During four and twenty hours after the operation, great pain was experienced about the region of the bladder ; the urine flowed through the wound. For two days subsequently there was comparative ease. Then the pain returned with even greater severity than before the operation. It was relieved only by subcutaneous injections of morphia, the quantity of which we were obliged to increase till it amounted to three grains in the twenty-four hours. In

the intervals, when the influence of the morphia was passing off, his cries were loud and incessant. The wound became coated with phosphates and the bowels were very constipated, evacuations being obtained with much difficulty through the agency of medicines and enemata. This state of things went on for about two months. We supposed the disease had returned or had been incompletely removed, and we had little hope of his recovery. After that time, however, to our surprise, he began to mend; the pain diminished, and the quantity of morphia was lessened; the wound assumed a healthy appearance and healed up; the urine was passed by the natural passage without pain and at longer intervals. In the early part of January, 1878, he was well enough to return home, and was quite well and at work in January last.

A case similar to the above is related¹ to have occurred in the practice of Professor Billroth. The patient was a boy, æt. 12, with frequent painful micturition. A tumour could be felt in the region of the bladder, and it was inferred, from an examination with the sound, that it was connected with the back of the bladder. The lateral incision into the bladder was made, and a tumour, nearly of the size of a fist with an uneven surface, was found projecting from the posterior wall into the cavity of the bladder. Owing to its size it was found impossible to extract the tumour with the finger through the perineum. A suprapubic incision was then made, both recti were cut across, and a transverse incision carried into the bladder. The tumour was then torn through, near its base, with the finger, and the pedicle dissected out. It appeared to take its origin from the muscular coat, and had not attacked the peritoneum. A drainage tube was passed into the bladder and drawn out at the incision in the perineum. In a month the patient was discharged perfectly well. The tumour was principally a myo-sarcoma, and in some places myo-carcinoma.

These are, I believe, the only two cases in which the male bladder has been cut into with success, for the purpose of removing a growth in the interior. Desault is said to have

¹ 'Brit and For. Med.-Chir. Rev.,' 1876, p. 226.

twisted off a fungus from the bladder of a male on whom he was performing the operation of lithotomy. In a man, æt. 49, operated on by Gersung, the growth was not reached, and the patient died.¹ In a male child, whose symptoms gave suspicions of calculus, Crosse cut into the bladder; vascular grape-like bodies projected into the wound and were cut off. He endeavoured to remove them more effectually, but they were parts of a large broad-based growth. The specimen represented in plate xx of his treatise on 'Urinary Calculus,' is in the Museum of the Royal College of Surgeons.

Growths have been removed through the female urethra, after dilatation or cutting, with success, by Warner,² Alexander,³ Lawson Tait,⁴ and Bryant.⁵ Norton⁶ removed one by an incision through the vagina, but the patient died.

Having recently taken some pains to investigate the subject of growths in the bladder, I subjoin a brief account of them.

They may occur at any part of the male or female bladder, but are most frequent near the orifices of the ureters.

They may present the following characters:

First. They may be *VILLOUS* or *PAPILLOMATOUS*, arising from the surface of the mucous membrane, and consisting of more or less dilated blood-vessels covered by polygonal variously shaped epithelial cells. They are at first, and may long remain, solitary; but similar secondary growths often occur near by or at a distance, and the mucous membrane may acquire a coarsely granular character in the neighbourhood. The primary growth has commonly a narrow base, and, sprouting into the bladder, becomes polypose. The secondary growths may be polypose or sessile, those which are of longest standing being most polypose.

They are not very uncommon. They occur most frequently after puberty. Indeed, I do not know of any instance in which

¹ Quoted in a paper by Dr. Hudson, in 'Dublin Journal of Medical Science,' June, 1879.

² 'Cases in Surgery,' 1761, p. 264.

³ 'Lancet,' 1879, vol. i, p. 84.

⁴ 'Diseases of Women,' p. 81.

⁵ 'Brit. Med. Journal,' May 31st, 1879, p. 821.

⁶ *Ibid.*

the disease has occurred before puberty; and they may always be removed without interfering with the muscular coat of the bladder.

They do not always occasion any symptoms or inconvenience; and it is probable that they may exist for years without doing so. In a case I lately attended there had been occasionally recurring severe and prolonged attacks of hæmorrhage over a period of seven or eight years. In the intervals, which were of several months or a year duration, the urine was quite free from blood, and the patient suffered but little. He died after a period of excessive hæmorrhage. There was a pedunculated villous growth of the size of a walnut, near the orifice of the right ureter, a smaller growth of the same nature, sessile, at a short distance from it, and a granular state of the adjacent mucous membrane. In the Museum of St. George's Hospital is a specimen (ser. xii, No. 113) of a solitary villous growth, attached by a narrow base to the neck of the bladder, from a gentleman aged 81. The first attack of hæmaturia, lasting eight months, was twenty years before death. No return for four years. After which returns at intervals; the blood, which was always bright, increased to a certain point, then diminished but did not disappear entirely. Small fleshy growths in the eye of the catheter shortly before death disclosed the nature of the disease. In another specimen, 113a in the same museum, where the base of the growth is larger, an attack of hæmaturia occurred nine years before the death of the man, which took place at the age of sixty. Apparently there was no return and no symptoms till two months before death; it was then constant, with pus, &c. In the account of a specimen (2006) in the College of Surgeons, a quantity of blood is said to have been passed sixteen years before death; this subsided, and no return took place till six or seven years before death; then more severe hæmaturia, which subsided, recurring after three years; it again subsided to recur two years before death. In the last two years the attacks were more frequent, but in the intervals the patient was perfectly well. Brodie¹ remarks that he has known the

¹ Urinary Organs, p. 121.

disease protracted for seven or eight years, and the urine to be bloody for a short time, then become clear and continue so for one or two years, when the blood has again shown itself, never wholly disappearing afterwards. I do not think this point of the occasional cessation of the symptoms for long periods, which has an important bearing on diagnosis and treatment, has been sufficiently recognised.

Secondly. The growths may have their origin in the deeper layers of the mucous membrane or in the submucous tissue. These may be called MUCOUS GROWTHS or MYXOMATA, inasmuch as they resemble the mucous polypus of the nose, being composed of loose connective or filamentous tissue, with an epithelial covering which gives them a smooth surface. This covering they may lose and may become ragged, velvety, or ulcerated. They may be pendulous, hanging by one or many stalks, or may form lobulated or cauliflower-like masses. They may spring from one spot, but commonly involve a considerable surface of the bladder. They do not encroach upon the muscular coat. They are most common before puberty. Specimens in Guy's Museum 2104^{1 28, 30, 34}; in St. Bartholomew's 27 and 29; in College of Surgeons 1999 and 2000 (Crosse's case), appear to be of this nature.

Thirdly. The FIBROUS GROWTHS or FIBROMATA. These are of firmer, more fibrous, structure. They originate in the submucous tissue, and are usually pedunculated. They carry the mucous membrane before them, and it becomes filamentous or ulcerated. Of this nature was the tumour in my patient, also apparently in the case operated on by Billroth; and specimens 12, 44, in the Museum of the Middlesex Hospital, 2104¹ in Guy's, and 2003 and 2004 in College of Surgeons, appear to be of this nature.

Fourthly. The MALIGNANT or CANCEROUS growths. These begin in the mucous or submucous coats, do not often become polypose, but spread in all directions, and may involve all the coats of the bladder and the surrounding tissues.

Of these various growths the fibromata, being solitary,

Case described by Birkett in 'Medico-Chir. Trans.,' vol. xli, p. 314.

polypose, and limited to the submucous tissue, are the most favorable for operation.

The papillomata, which are more frequently met with than the fibromata, may affect a larger area of the surface, and may be numerous. Still, as they are confined to the surface of the mucous membrane and are often polypose, they, for the most part, admit of being removed. When they are solitary this could be done without much difficulty. In none of the specimens of myxoma that I have seen would the attempt at removal have been likely to succeed. In the malignant or cancerous diseases the attempt should scarcely be made.

The diagnosis of these growths from one another, and indeed from other affections of the bladder, I need scarcely say is often difficult or impossible without digital exploration. That method of investigation will, I doubt not, in the future be more freely resorted to. The success which, in many cases of chronic inflammatory affections of the female bladder, has resulted from dilatation of the urethra and introduction of the finger, justifies us in looking with favour upon the resort to a similar method in the male in cases of protracted or serious and doubtful disease of the bladder. The requisite incision upon a staff is a matter of little difficulty or danger. The effect of it, if the affection be inflammatory, may not unlikely be beneficial. If the affection be cancerous or irremediable no great harm will have been done. If a fibrous or papillomatous growth be discovered, it may admit of removal through the wound as in my case (or through the urethra as in Warner's and other cases in the female). Further, Billroth's case shows that, if the growth cannot be thus removed, the operator should be prepared to open the bladder above, or rather behind the os pubis, for which operation the perineal incision, or the dilatation of the urethra, will have been a good preliminary proceeding.