膀胱粘液腫の1例

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患者: 星野某, 男, 6 歳, 初診, 昭和 26 年 2 月。

現病歴: 約 3 月前より排尿困難あり, 10 日前より排尿は点滴状となり強度の尿意促進と排尿痛を訴う。

現症: 下腹部は球状に膨隆す。導尿を行うに此の膨隆は完全に消失す。尿は濁濁し, 多量の白血球並びに大腸菌を認む。

膀胱鏡: 實施不能。

膀胱及び尿道レ線像: 膀胱に變形はないが膀胱底部より内尿道にわたり大小球状腫瘤の集塊を思わせる造影剤の充滿缺如あり (歐文附圖 1, 2 参照)。

経過: 入院後直ちに留置カテーテルとなす。間もなく右腎部の腫張壓痛を來し, 腎周囲膿瘍と診

斷し切開を加え排膿したが全身状態漸次悪化し入院後 19 日目に死亡す。

病理解剖所見: 膀胱壁に浸潤はないが三角部より外見ブドー状有莖性の腫瘍が發生し, 其の一部は内尿道に侵入す (歐文附圖 3 参照)。

組織的には, 膀胱粘膜下に膠狀の基質中に紡錘狀, 星芒狀の粘液腫細胞の増殖を認めたが肉腫様所見は何處にもない (歐文附圖 4, 5 参照)。

腎は兩側に高度の上行性急性化膿性腎盂炎及び腎周囲炎を認む。その他急性汎發性腹膜炎あり。

以上より我々の症例は膀胱三角部に發生した粘液腫で之により尿閉を來し, 次で上行性腎盂炎をも起し, 更に腎周囲炎より急性汎發性化膿性腹膜炎を併發し死亡したものである。

MYXOMA OF THE URINARY BLADDER: CASE REPORT

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Myxoma is one of the rarest lesions of the urinary bladder; the prognosis is grave and the termination is always fatal. This rarity is shown by the fact that few physicians encounter such a tumor once or twice like Albarran in a lifetime of practice. This being true, the literature consists mostly of reports on single cases. The foregoing record of this disease was made by Stanley in 1852 and since then several cases have been reported. In Japan, such a condition was first recorded by Fukuda in 1939. We wish to add one more case to the literature. Our case was observed roentgenologically and final diagnosis was made by autopsy. It is our chief purpose in this presentation to call attention to roentgenographical changes of the bladder, which we could not find in the literature. A review of the patient's symptom and a résumé of the urological study are as follow:

Case report

S.H., a male, 6 years of age, was admitted to our clinic in February 10, 1951, with a chief complaint of complete retention of urine. The family history was unimportant. The child was a full-term baby with normal delivery, whose general condition had been excellent up to 3 months ago when it began to have dysuria. For 10 days prior to admission to our clinic the child voided only a few drops of urine every 20 to 30 minutes. Each urination was accompanied by a great deal of tenesmus and very severe pain. But there was no sign of haematuria. The child's appetit was fairly good, bowels regular.

Examination

The child was normal nourished but showed moderate pallor of the skin and mucous membranes. The pulse was 100, the temperature 36.9C. The head, neck and chest did not reveal anything of note. The abdomen was somewhat distended in the lower half where a definite rounded mass extended from the symphysis pubis to the navel. This tumor was smooth, symmetrical, dull to percussion and resembled a distended bladder.

The external genitalia and the tests were normal. There was no bulging or reddening about the urethra or perineum. The vital signs were normal. Rectal examination was not done because the child would not tolerate it. The patient was catheterized with complete disappearance of the tumor mass after the removal of 400 cubic centimeters of marked turbid urine.

Laboratory finding; blood count: Erythrocytes 3850,000, hemoglobin 60 percent, leucocytes 9,200 with 50 segmented cells, 6 stabcells, 8 monocytes, 4 eosinophilic cells and 32 lymphocytes.

Urinalysis: Acid, albumin strongly positive, sugar negative, many blood cells, innumerable pus cells and bacillus coli.

Cystoscopy. General anaesthesia was employed. There was little difficulty in passing a child's size cystoscope. The bladder capacity was about 150 cubic centimeters and the return fluid blood tinged, so that exact examination could not be carried out.

Roentgenological examination: Retrograde cysto-urethrogram using 15 percent NaJ, was in right oblique position. The urographic medium did not fill the bladder. Although tumor was not outlined, it might be reasonably safe to surmise that abrupt contrast medium represents a tumor of bladder which is a cause of obstruction. There was a characteristic lengthening, widening and spreading of the posterior urethra with a slight anterior tilting. A characteristic abrupt termination of contrast medium appear lower to thirds of the posterior urethra. It was believed, that is a tumor obstructing the urethra. Retrograde cystogram using 15 percent NaJ, in antero-posterior position: A No. 7 Nélaton's catheter is inserted into the bladder and approximately 70 cubic centimeters of the contrast medium is injected. The contour of the bladder is smooth, symmetry and oval in shape. As regards the deformity and the infiltration of the bladder we can say nothing. We can find an

extensive incomplete filling defect in lower half of bladder. The defect has a relatively well circumscribed picture and its border line represents a different size from irregular unevenness in shape. In some part, the contrast medium penetrate in deep to the filling defect in streaked, clubed or crescentic shape. After all, it was believed that there was a kind of tumor in the lower half of bladder and the posterior urethra. The defect may, in our opinion, vary in size from a small, well circumscribed one to one, in which the entire lower bladder and posterior urethra filled with tumor in layers, only the periphery of these tumors being visualized with contrast medium.

Course

An immediate indwelling catheter was done. Two days after the catheterization, the patient had a violent chill accompanied by dyspnoea, which lasted about 30 minutes, then his temperature showed 38.0°C. The patient complained of pain in the right loin. Then, he was given intramuscular injection of penicillin 100,000 unit daily. In spite of our treatment, the patient's temperature course was septic on admittance with daily swing from 36.8°C and leucocyte count 16,000. A diagnosis of right perinephric abscess was made and surgical interference carried out. Slight perinephric abscess was found on the anterior surface of the right kidney, which was drained. In spite of all these measures patient's condition had grown worse day by day and died 19th day after the admission.

Autopsy report

Autopsy was performed Feb. 29. 1951. The pathological anatomical findings on urinary system are as follows:

(1) The bladder was soft, movable and showed no evidence of infiltration of the tumor. Longitudinal section was made. There were several slight trabeculation in the wall of bladder and several small areas of haemorrhage into the trigone. A grape-like mass filling the trigone and several mass of tumor was forced into the posterior urethra. Further examination disclosed large lobular tumor with a pedicle. The specimen consists of numerous spheroidal or ovoid masses of tumor, the largest of which was walnut size. These masses were loosely attached to the wall of trigone with narrow pedicle. The surface was smooth and glistening and of a yellow or reddish-blue color. The tissue had a gelatinous, myxomatous appearance throughout. The consistency was very soft jellylike. There was no evidence of deep infiltration in wall of bladder.

Microscopic note: Several sections from different parts of the tumor were studied. The findings were fairly uniform in all sections. The main portion of the tumor was the stroma which was myxomatous in character. Just beneath the mucosa membrane was quite cellular in appearance. The cells were spindle or fusiform in shape with round or spindle shaped pyknotic nuclei. No mitotic figures were seen. In some areas there were a considerable number of blood vessels. Final diagnosis were polypoid myxoma of the urinary bladder.

(2) Ureter.

The lower end of the ureter was incompletely occluded by myxom tissue. There were a represented chronic ureteritis in histologic appearance.

(3) Kidney.

There were ascending acute pyelonephritis showing moderate dilatation of the pelvis, accompanied with perinephritis. The others, acute purulent panperitonitis. It is evident that the case is a myxom of the urinary bladder accompnied by or secondary to ascending pyelonephritis with perinephritic abscess and following death from the acute purulent panperitonitis.

Discussion

Albarran states that pure myxoma is extremely rare and further that there is a great diversity of personal opinion in the study of this tumor microscopically. He thinks that there may be a form of sarcoma most often seen in female infants. Ewing further remarks that as a rule malignant myxomata fall readily into the class of myxo-sarcomata. The primary occurrence of myxoma in the bladder is questioned by O'Crowley and it would seem best to classify such tumor among the sarcomata. No sarcomatous picture were revealed in our case. Although it is surely the mesothelial neoplasm and the absence of epithelial growths, we do not know what influences or forces have brought about this abnormal cell development. Thompson believes them to be congenital. As far as can be ascertained in our case heredity plays no definite part in this tumor. R.A. Willis induce to nerve-sheath origin. The vesical myxoma occurs almost in the first decade of life and the sexes are more equally involved. It is very rapid growing, recurring often, and showing marked invastive tendencies, and thus it might possibly be considered a malignant. But they were very rarely ulcerate, and metastasis. The clinical course in our patient was extremely rapid in progress and followed by the death within 3 months from initial symptoms were of served. We could not found ulcer and metastasis in our case. It is reasonable because they are not epitheial. Malherbe states that myxoma of striated muscle, fascia and of certain viscera is usually malignant and while in the nares, breast, bone and nervous tissue it is almost always benign. Wills remarks that myxoma of urinary bladder is a malignant.

The symptoms of vesical myxom include those dependent upon;

(1) the local lesion(haematuria, anemia resulting from loss of blood, frequency, dysuria and urinary obstruction);

(2) bacterial infection with secondary change in the bladder (pyuria, fever and greater urgency, frequency, dysuria and hematuria): (3) ureteral occlusion(abdominal pain, tender enlargement of the kidney, chills, fever and uremia). We considered that the majority of these symptoms attend advanced stages of diseases and the early symptoms are frequency of urination, pain by miction and dysuria. As in above mentioned so in our case, the relative dominant clinical features are disturbance with urination, pain by miction. But no

Fig. 1. Urethro-cystogram, oblique position.

Fig. 2. Retrograde cystogram, anteroposterior position.

Fig. 3. Myxoma of the bladder: lobulated tumor mass protruding from the trigone.

Fig. 4. Myxoma showing a polypoid tumor covered with an intact mucosa of transitional and squamous epithelial cells. The core is composed of lightly stained edematous tissue. (low power)

Fig. 5. Myxomatous area: the cells are stellate, the stroma is mucoid. (high power)

sign of haematuria. We considered that haematuria is not so common in early stage because the tumor is not epithelial and less likely to ulcerate.

As can be ascertained with the roentgenological picture and biopsy in our case, the tumor being compressible, may be forced into posterior urethra in the male. This may be caused by the increasing of abdominal pressure in mictions. Steinmetz H. Marsh states that they frequently transverse the urethra in the female and appear at the vulva as a rounded mass. This tumor develops submucous, but show a tendency to grow toward the vesical cavity. It becomes pedunculated and may grow to enormous proportions, so as to cause ureteral occlusion and then dilatation of upper urinary systems, followed by secondary infection just as our case. In other words we may expect symptoms which will correspond to various grades of obstruction from very slight to complete retention of urine. Vesical tumors in infant gives practically the same symptoms. In girls the protrusion of myxoma masses through the urethra gives positive evidence of its presence.

To determine what conditions might cause these clinical symptoms is a uncertain problem until the cystoscopy is carried out. Infant cystoscopy now helps in the making of correct diagnosis, but sometimes child would not tolerate it. We performed it in our case with a very little difficult in passing a child's size cystoscope. But we failed to make a exact diagnosis until the autopsy was made. Because the return fluid blood tinged. We think that the cystography is the most important method of visualizing changes of the bladder caused by vesical myxom in which cystoscopy is inapplicable; anteroposterior, right or left oblique exposure are essential. We are especially explained of its roentgenological feature as mentioned above, because their fine explanations has not been reported in previous reports.

We believe that the following is an abstract of its feature.

- (1) The filling defect, in which the bladder has no relation to a deformity, infiltration ;
- (2) The borderline of the defect represents a different size from irregular unevenness. It will be caused by tumormasses in layer. So only the periphery of these masses being visualized with contrast medium. If the tumor may be forced into the posterior urethra, it might be caused a characteristic lengthening, widening and spreading of the posterior urethra with the slight anterior tilting.

As regards the treatments there is no definite one. Statistics show a almost 100 per-cent mortality regardless of the various types of surgical and radio therapy which have been attempted all with equally poor results. We think that there is only one otherway for treatment and is total cystectomy, as recommended by Albarran. Since so rarely lymphatic and hematic metastasis resulted in them, it is logical belief that nothing short of a total cystectomy would give an effective cure. However, it may be a beginning in the right direction. We could not perform such a procedure as the patient's course was very rapid and death.

Summary

The occurrence of vesical myxoma is infrequent and occurs mostly the first decade of life. We experienced one case. The patient, a boy 6 years old was admitted to our clinic, with a complete retention of urine. Roentgenological examination was carried out. We could not, however, make of a definite and accurate diagnosis by it.

We explained the roentgenological picture of the vesical myxoma. The patient's condition had grown worse day by day, and died on 19th day after admission. Autopsy was performed, and final diagnosis was made, that is myxoma of the urinary bladder, accompanied by ascending pyelonephritis with perinephritic abscess and following death from the acute purulent panperitonitis. We wish to thank prof. Dr. Takenouchi of the Department of Dermato-Urology for his advice.

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