A CASE REPORT: A GIANT PROSTATIC LEIOMYOMA

MASAAKI NAKAZONO*, SHOZO IWATA* and KEIZO SUZUKI**

* *The Second Tokyo National Hospital, Tokyo, Japan*

** *Hiratsuka City Hospital, Kanagawa, Japan*

(Received for publication September 29, 1976)

ABSTRACT

Minute leiomyomatous nodules are found rather commonly in benign hyperplasia of the prostate. But true leiomyomas of the prostate, which can meet the definitions proposed by Kaufman and Bernike, are rare. In Japan 5 cases are found in the literatures.

An additional case, a male 52-years-old complaining retention of urine was reported.

Preoperative diagnosis was benign hyperplasia of the prostate and was exposed by the usual suprapubic approach. The tumor was too large to resect en block, but the operation finished uneventfully. The surgical specimen weighed 420 g that was the largest one reported in Japan. The postoperative course was an acceptable one. The final pathological diagnosis was leiomyoma of the prostate. The details are described herein.

Case Report:

A 52-year-old Japanese male referred to the [REDACTED] complaining urinary retention on May 15, 1975.

Physical examination revealed a large smooth surfaced rather soft tumor in the middle portion of the lower abdomen. No pathological lymphnode could be palpable neither in the bilateral axilla nor in the groin. Eight hundred ml of normal appeared urine were evacuated by catheterization. After the catheterization a rather smaller but still large solid mass could be felt in the same position where the large soft tumor was found. Anal digital examination disclosed a severe degree of enlargement of the prostatic gland. The surface was smooth and it was elastic in consistency. No other pathological finding could be observed on palpation nor inspection.

He entered to the hospital under the diagnosis of prostatic sarcoma on June 17, 1975. Intra-venous pyelograms (IVP) revealed normal shapes of the bilateral

Fig. 1

upper urinary tracts but a large defect of dye was seen in urinary bladder area (Fig. 1). There was no pathological change in bleeding and clotting time. Hemoglobin was 12.6 mg per dl and hematocrit was 38.3 per cent. White blood cell count was 9500 with a normal differential. There was no evidence of anemia, and red blood cell was 430×10^4 . Urinalysis showed mild microscopic hematuria but almost no WBCs nor casts could be found. Chest x-ray and E.C.G. were both within normal ranges. BUN and serum creatinine were 10, and 1.1 mg/dl. respectively. No abnormal findings were seen in liver function tests.

Open biopsy of the prostate was performed through a short transverse skin incision in the lower abdominal wall. A large tumor was seen in the bladder neck and many dilated veins running on the surface were observed. A permanent cystostomy was constructed after the resection of a small piece of prostatic tissue. The pathological diagnosis of the specimen was benign glandular prostatic hyperplasia without an evidence of malignancy.

He was transferred to [REDACTED] for operative treatment on July 11, 1975. The results of the critical examinations performed

Fig. 2

Fig. 3

at [REDACTED] were found almost the same as those of the previous one except that 2×10^6 /ml candida albicans were cultured from urine. Under the preoperative diagnosis of benign prostatic hypertrophy, open prostatectomy was performed through a median skin incision in the lower abdominal wall. The tumor was too large to resect en block. It was removed in many fragments. The operation finished uneventfully. The resected tissue weighed 420 g. The postoperative course was just an acceptable one. On Aug. 14, 1975 he left the hospital. The final pathological diagnosis was leiomyoma of the prostate (Fig. 2). No malignant change was seen in the surgical specimen. Fig. 3 showed the recent IVP which was taken one year after the operation. This revealed normal collecting systems with acceptable drainage on the both sides. The bladder shape and position were also seemed within normal ranges.

DISCUSSION

In generally speaking, a leiomyoma arising in the uterus is the most commonest benign tumor in the body and minute leiomyomatous nodules are found rather commonly in benign hyperplasia of the prostate. But true leiomyoma of the prostate is rare. Kaufman and Berneike¹ proposed a definition what is the true leiomyoma of prostate. According their definition, leiomyoma of the prostate means: a circumscribed or encapsulated mass of the smooth muscle, 1 cm or more in diameter, containing varying amounts of fibrous tissue but devoid of glandular elements and which is either obviously prostatic or juxta prostatic in origin and position. Based on this definition they collected 35 cases in the literature and added 3 their cases.

In Japan, 5 cases are found in the literatures. The first case reported in Japan was in 1917 by Kojima *et al*, and recently in 1973 the 5th case reported by Terada *et al*.³ This case is the 6th case in Japan. All the cases reported in Japan meet the definition proposed by Kaufman and Berneike.

The largest case reported is that of Neupert³ in which the surgical specimen weighed 3.6 kg and in two other cases, resected tissues weighed over 500 gr. But in these three cases the prognoses were poor. This case is seemed to be the largest case that was successfully controlled by operative procedures in the literature.

There are numerous theories regarding the pathogenesis of leiomyoma of the prostate. Infection and inflammation, chronic prostatitis, arteriosclerosis, embryonal anlagen and Mullerian duct fibers are considered the cause or origin of leiomyoma of the prostate. We experienced a rare case of prostatic leiomyoma and could return him to the ordinary social life by operative procedures.

REFERENCES

1. Kaufman, J. J., and Berneike, R. Leiomyoma of the prostate. *J. Urol.* 65: 297, 1951
2. Terada, Y., Nishimura, Y. and Kitagawa, R.: A case of leiomyoma of the prostate. *Jap. J. Clin. Urol.* 27: 67, 1973
3. Neupert: Prostamyom. *Zentralbl. f. Chir.* 58: 1071, 1931