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A CASE OF FIBROUS PSEUDOTUMOR ORIGINATING FROM TUNICA VAGINALIS TESTIS

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A 32-year-old man presented with a complaint of painless palpable mass of the left scrotal content. Based on the preoperative diagnosis of scrotal or spermatic cordal benign tumor, local excision was performed. The histological diagnosis was scrotal fibrous pseudotumor. In Japan, only 35 cases of fibrous pseudotumor of the scrotum have been reported including our case. Orchiectomy was performed in 15 cases. Fibrous pseudotumor is a benign fibroproliferative lesion with dense hyalinization and sometimes focal calcification. It may be induced by previous intrascrotal infiammatory events such as epididymitis, an infected hydrocele, prior surgery or trauma. Although a relatively rare disease, a fibrous pseudotumor should be considered in the differential diagnosis of testicular and testicular tunica tumors. Our case was of a benign pseudotumor and orchiectomy could have been avoided.

(Hinyokika Kiyo **51** : 483–486, 2005)

Key words : Scrotum, Fibrous pseudotumor, Inflammatory change

INTRODUCTION

Fibrous pseudotumor of the scrotum is a rare fibromatous condition. It is a benign fibroproliferative lesion with dense hyalinization and sometimes focal calcification. Most of these cases occur in the testicular tunics, whereas a few originate from the epididymis. In Japan, only 35 cases of fibrous pseudotumor of the scrotum have been reported including our case. Orchiectomy was performed in 15 cases. Although a relatively rare disease, a fibrous pseudotumor should be considered in the differential diagnosis of testicular and testicular tunica tumors. Our case was of a benign pseudotumor and orchiectomy could have been avoided.

CASE REPORT

A 32-year-old man presented with a complaint of

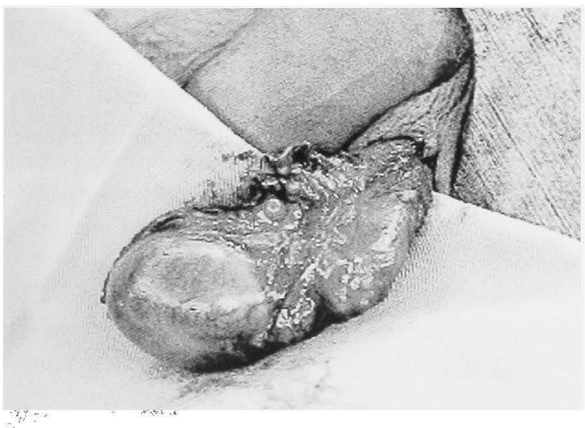

Fig. 1. The operative appearance indicated tumors of various sizes originating from tunica vaginalis testis.

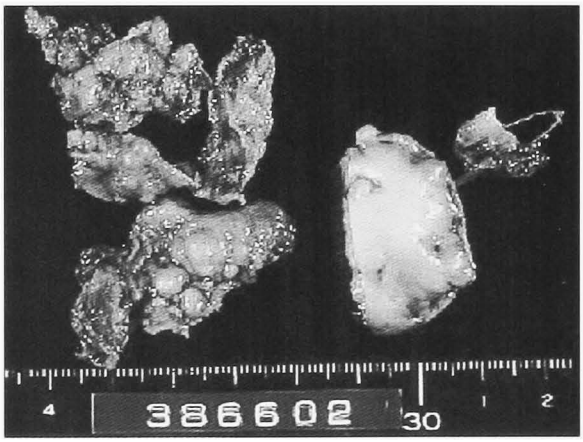

Fig. 2. Gross appearance of surgically resected specimen with multiple nodules up to 3 cm in size.

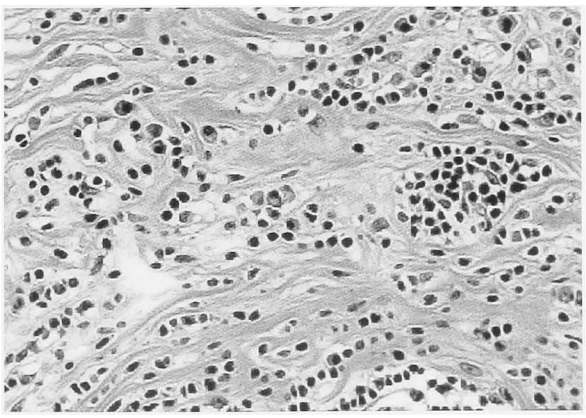

Fig. 3. Microscopically, the nodules were composed of benign fibrous lesion with calcification and lymphoplasmacytic infiltration (HE ×400).

painless palpable mass of the left scrotal content. His past history and family history were unremarkable. Hemogram, serum chemical studies and urinalysis were within normal limits. There was no obvious history of epididymitis, scrotum hydrocele, or testicular trauma.

Six years before, the patient had noticed a painless scrotal mass but did not seek medical attention. Recently he realized the mass gradually growing and visited our hospital. On physical examination, several firm and freely movable nodules up to 3 cm in diameter

Table 1. Thirty-five cases of intrascrotal fibrous pseudotumor reported in Japan

Year	Reporter	Age	Side	Form	Location	Complement	Treatment
1980	早川	54	rt.	Solitary	Epididymis	Painless tumor	Epididymectomy
1981	太田	39	rt.	Multiple	Tunica vaginalis testis	Painless tumor	Orchiectomy
1983	関根	49	rt.	Multiple	Tunica vaginalis testis	Painless tumor	High orchiectomy
1984	山岸	31	lt.	Multiple	NA	Painless tumor	Surgically removed without orchiectomy
1985	中目	8	rt.	Solitary	Spermatic cord	Painless tumor	Surgically removed without orchiectomy
1987	窪田	46	lt.	Multiple	Tunica vaginalis testis	Painless tumor	Surgically removed without orchiectomy
1988	塚本	54	lt.	Solitary	Tunica vaginalis testis	Painless tumor	High orchiectomy
1988	近藤	4	lt.	Solitary	Spermatic cord	Painful tumor	Surgically removed without orchiectomy
1988	能中	44	rt.	Solitary	NA	Painless tumor	Surgically removed without orchiectomy
1989	竹林	46	rt.	Multiple	Tunica vaginalis testis	Painless tumor	Surgically removed without orchiectomy
1989	池田	80	lt.	Solitary	Spermatic cord	Painless tumor	High orchiectomy
1989	佐久間	81	lt.	Multiple	NA	Painless tumor	High orchiectomy
1990	小倉	60	rt.	Solitary	Tunica vaginalis testis	Painful tumor	High orchiectomy
1990	岡	26	rt.	Solitary	NA	Painless tumor	High orchiectomy
1990	岡本	67	lt.	Solitary	Spermatic cord	Painless tumor	Surgically removed without orchiectomy
1991	大家	32	lt.	Solitary	Tunica vaginalis testis	Painless tumor	Surgically removed without orchiectomy
1991	三股	25	lt.	Solitary	Epididymis	Painless tumor	Epididymectomy
1993	迎	30	lt.	Multiple	NA	Painless tumor	Surgically removed without orchiectomy
1993	徳田	50	rt.	Multiple	Tunica vaginalis testis	Painless tumor	Orchiectomy
1993	田中	38	lt.	Solitary	Epididymis	Painless tumor	Surgically removed without orchiectomy
1994	原口	42	rt.	Solitary	Tunica vaginalis testis	Painless tumor	orchiectomy
1994	月川	65	rt.	Solitary	NA	Painless tumor	High orchiectomy
1994	久保	47	lt.	Multiple	Tunica vaginalis testis	Painless tumor	Surgically removed without orchiectomy
1995	堀場	77	Median	Solitary	NA	Abscess formation with fistulation	Surgically removed without orchiectomy
1995	丸岡	46	Bilateral	Multiple	Tunica vaginalis testis	Painless tumor	High orchiectomy
1995	奥間	56	NA	Solitary	NA	Painless tumor	High orchiectomy
1997	小野寺	67	rt.	Solitary	NA	Abscess formation with fistulation	High orchiectomy
1997	上条	22	rt.	Solitary	Spermatic cord	Painless tumor	Surgically removed without orchiectomy
1997	徳地	59	rt.	Solitary	Spermatic cord	Painless tumor	Surgically removed without orchiectomy
1997	鄭	45	rt.	Solitary	Epididymis	Painless tumor	Epididymectomy
1997	張	16	lt.	Solitary	Epididymis	Painful tumor	Surgically removed without orchiectomy
2000	宍戸	45	lt.	Solitary	Spermatic cord	Painless tumor	High orchiectomy
2001	岩田	65	rt.	Multiple	Epididymis	Painless tumor	High orchiectomy
2002	牛田	42	rt.	Multiple	Tunica vaginalis testis	Painless tumor	Surgically removed without orchiectomy
2003	Our case	32	lt.	Multiple	Tunica vaginalis testis	Painless tumor	Surgically removed without orchiectomy

NA : not assessed.

were palpable in the left scrotum. These nodules were painless and were clearly separated from the testis and epididymis. Their relation with spermatic cord was unclear. Both testes were palpable and normal in size.

Based on preoperative diagnosis of scrotal or spermatic cordal benign tumor, local excision was performed in October 15, 2002. The operative appearance indicated tumors of various sizes originating from tunica vaginalis testis (Fig. 1). There were multiple nodules measuring up to 3 cm in diameter attached to the tunica vaginalis testis and a series of some nodules stretched along the spermatic cord. There was no adhesion between testis and tunica vaginalis testis. Intraoperative histopathological examination of frozen section of the nodules demonstrated no evidence of malignancy. Therefore, multiple nodules were resected en-bloc with testicular tunic. These nodules on the spermatic cord were subsequently excised as far as possible and some of these nodules were left along the spermatic cord. The testis, epididymis, spermatic duct and testicular artery were preserved.

Two weeks after the surgery, the patient was examined by abdominal CT scan, which demonstrated residual nodules along the left spermatic cord. The patient had been followed with no complication and without any further therapies. For 6 months after the operation he has not visited to the hospital. The outcome of residual nodules was uncertain.

PATHOLOGY

There were multiple nodules up to 3 cm in size. They were smooth, stony hard and white-to gray in color. The cut surface was white, uniform and firm (Fig. 2). Microscopically, it was composed of benign fibrous lesion with calcification and lymphoplasmacytic infiltration. Pathological diagnosis was that of fibrous pseudotumor (Fig. 3).

DISCUSSION

Fibrous pseudotumor is an uncommon mass lesion arising from various portions of the human body, most typically in the lungs and digestive organs. It is suggested to be induced by infiammatory chronic proliferative reaction and is characterized histologically by localized fibrous proliferations with infiltration by leukocytes and plasma cells. Preoperatively, it seems difficult to distinguish fibrous pseudotumors from malignant lesions.

Fibrous pseudotumor of the scrotum is relatively rare. Williams reported a study of 114 paratesticular tumors and found only 7 cases of fibrous pseudotumor[1] It is a benign fibroproliferative lesion with dense hyalinization and sometimes focal calcification. Most cases occur in the testicular tunica, whereas a few originate from the epididymis. Fibrous pseudotumor may be induced by previous intrascrotal inflammatory events such as epididymitis, an infected hydrocele, prior surgery or trauma. Mostofi reported a 30% rate of association with trauma and 45% with hydrocele[2].

In Japan, only 35 cases of scrotal fibrous pseudotumor have been reported including our case[3-6] (Table 1).

Of 35 Japanese cases, 22 were with solitary nodules and 13 with multiple small nodules. Fibrous pseudotumor is not a neoplasm but often mistaken for a malignant lesion. Cases with a huge solitary nodule are difficult to rule out malignancy in appearance. Although cases with multiple small nodules are relatively easy to diagnose preoperatively as benign lesions, they are frequently treated with orchiectomy. Of 22 solitary cases and 13 multiple cases, 9 (42%) and 6 (46%) were treated with orchiectomy, respectively.

Fibrous pseudotumors are induced by previous intrascrotal events such as old inflammation, traumatic etiology or scrotal hydrocele. Among 35 Japanese cases, 26 reports have assessed the existence of previous intrascrotal events. In 9 cases with previous events, 4 cases (44%) were unfortunately treated with orchiectomy. In 17 cases without previous events orchiectomy was performed in 8 cases (47%).

Should the benign nature not be determined, orchiectomy is the procedure of choice. Although rare, a fibrous pseudotumor should be considered in the differential diagnosis of testicular and testicular tunica tumors. Orchiectomy could be avoided, in the case of a benign pseudotumor.

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和文抄録

陰嚢線維性偽腫瘍の1例

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症例は32歳，男性．主訴は陰嚢の無痛性腫瘤．既往歴，家族歴に特記すべきことなし．6年前より陰嚢の無痛性腫瘤を自覚するも放置していた．数カ月前より腫瘤の増大を認めたため当院受診．精索の良性腫瘍を疑い摘除術を施行した．術中所見として陰嚢固有鞘膜内面に多発する結節状腫瘤を認めた．主病変と思われる3 cm大の腫瘤を摘除し術中迅速病理にて悪性所見を否定．そののち，精巣，精巣上体，精管を温存し可及的に腫瘤を摘除した．腫瘤は多発性結節状，表面平滑，弾性硬，割面は白色充実性であった．病理組織学的に繊維性偽腫瘍と診断した．腫瘤は線維性組織よりなりリンパ球や形質細胞の浸潤が見られた．悪性細胞は認めなかった．繊維性偽腫瘍は炎症や外傷を契機に反応性肉芽腫性増殖により形成される腫瘤性病変であり，真の新生物ではない．肺，消化器，皮膚など全身に認められる疾患であるが陰嚢内に発生する腫瘤性病変としては比較的稀である．われわれは陰嚢線維性偽腫瘍の1例を経験したので若干の文献的考察を加え報告した．

(泌尿紀要 **51**：483-486，2005)