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A CASE OF PRIMARY CARCINOMA OF THE EPIDIDYMIS

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We present a rare case of primary carcinoma of the left epididymis in a 32-year-old man. Pathological diagnosis was anaplastic carcinoma of epididymis. The patient is alive and free of metastases 2 years after orchidectomy. Clinical and pathological aspects of epididymal carcinomas are discussed with reference to previously reported cases.

Key words: Primary carcinoma, Epididymis

A careful review of the literature on primary malignant neoplasms of the epididymis revealed a total of 54 cases exclusive of the case reported herein[1~3]. The practicing urologist is usually not as well informed of malignant tumors of the epididymis, especially carcinoma. Furthermore, a well-organized clinical approach to epididymal neoplasms has not been developed compared with testicular tumors because of paucity of occurrence. We report a case of primary anaplastic carcinoma of the left epididymis and discuss the clinical and pathological aspects of epididymal carcinoma.

CASE REPORT

A 32-year-old man, a clerk, married and the father of 2 children went to his family physician about a month before being seen by us because of a painless swelling in the left testis which had been gradually increasing in size for 3 months. At that time he was thought to have a tuberculous epididymitis and was treated by antituberculous drugs, but since the swelling did not decrease and he noted testicular pain, he was admitted to our hospital. The family and past history were negative except for appendectomy at age 16.

The physical examination, except for the genitalia, was negative. The penis, right testis and prostate were normal. Examination of the left testis revealed a very nodular tumor about 4 cm in diameter situated in the upper pole of the left epididymis, but apparently not involving the testis itself. Inguinal lymph nodes were not palpable. There was no evidence of other primary malignancy or metastasis. Intravenous pyelography (IVP) and lymphangiography disclosed no abnormal finding. Urinalysis, routine blood analysis and tumor markers (carcinoembryonic antigen, α-fetoprotein and human chorionic gonadotropin) were within normal limits. Under spinal anesthesia, the left testis and the spermatic cord as far as the internal inguinal ring were removed.

The specimen measured 6×4 cm, and consisted of a testis and of a tumor of epididymal head (Fig. 1). Section through the tumor showed a well-encapsulated, yellowish-white solid tumor growth $4 \times 3 \times 2$ cm which had nearly replaced the upper pole of the epididymis (Fig. 2). The body and tail of the epididymis were not grossly involved. The testis and rete testis were entirely separate from the tumor and grossly normal. The spermatic cord was

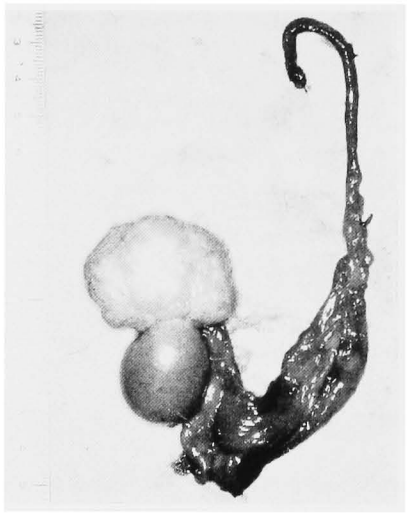

Fig. 1. External surface of testicle, showing tumor nodule in the upper pole of epididymis.

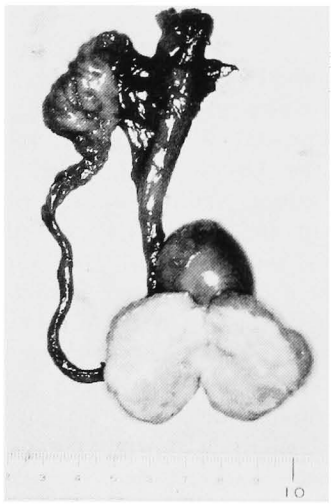

Fig. 2. Bisectional appearance of tumor, showing its position with reference to epididymis and testicle.

also grossly normal.

Microscopic examination of several sections through the tumor-bearing portion of the epididymis revealed the tumor which consisted of malignant large epithelial cells. Tumor cells formed solid cancer nests without special structural pattern and had occasional clear or foamy cytoplasm. The nuclei were columnar and pleomorphic. Many mitotic figures and modest stroma were recognized (Fig. 3). Sections of the spermatic cord and testis showed no evidence of tumor cells. The pathological diagnosis was anaplastic carcinoma arising from the epididymis. The patient made good progress and was discharged in 2 weeks. He was given neither radiotherapy nor chemotherapy. However, he is well and free of local recurrence and metastases to retroperitoneal lymph nodes and other organs 2 years postoperatively. Tumor markers remain negative.

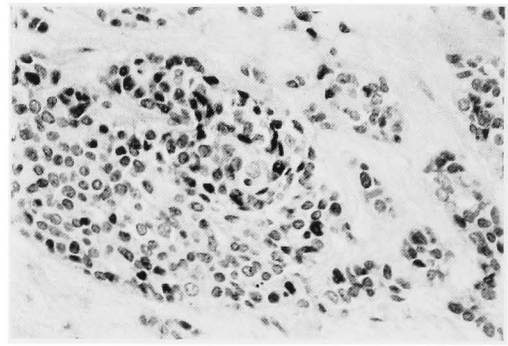

Fig. 3. Microscopic section of tumor cells in epididymal carcinoma. Nuclei are pleomorphic and hyperchromatic. Cell cytoplasm is occasionally clear. (Hematoxylin-eosin stain, original magnification ×400)

DISCUSSION

The occurrence of a tumor in the epididymis is so unusual that such a diagnosis is rarely considered when the nature of a swelling in this organ has to be determined. On the other hand, inflammatory swellings of the epididymis are exceedingly common. Since tuberculosis is most likely to be present as a painless epididymitis, it is natural that most epididymal neoplasms, which may also be painless, should be generally regarded as tuberculosis. Similarly in our case the patient was treated at first as epididymal tuberculosis. Lazarus reviewed 20 cases of carcinoma of the epididymis; 6 were designated simply as carcinoma, 1 as columnar celled carcinoma, 3 as squamous cell carcinoma, 1 as epithelioma, 8 as adenocarcinoma, and 1 as embryonal carcinoma. In one case the epididymis presented two distinct tumors, one a carcinoma, and the other a seminoma[1].

Tumors of the epididymis are highly malignant and usually take a rapidly fatal course. In the case of adenocarcinoma reported by Scholl[4], the patient, aged 22 years, exhibited local recurrence three months after operation and pulmonary metastases four months postoperatively. Diagnosis in these cases is apt to be particularly misleading because the clinical picture so closely simulates a chronic or subacute epididymitis and is often associated with hydrocele. The entire epididymis is enlarged and irregular and is often associated with more or less pain typical of that occurring in inflammatory conditions.

Beccia et al. reviewed their experience and the literature on cases of non-testicular intrascrotal tumors seen between 1965 and 1975, and found 341 epididymal tumors. Eighty four of these cases (25%) had malignant diseases which included sarcoma, carcinoma and carcinoma metastatic to the epididymis from other sites. Primary epididymal carcinoma accounted for 20 and 24% of the total malignant tumors[2]. We have found in the Japaneses literature, in addition to our own case, fifteen (37% of the malignant epididymal tumors) recognizable primary carcinomas of the epididymis reported between 1916 and 1985[3]. The left and right epididymides have been reported to be affected at similar frequencies. Primary carcinoma affects patients between the ages of 20 and 40 years old. This tumor also presents as a painful tender mass[5]. In decreasing order of frequency malignancy in the stomach, prostate, kidney, colon and other organs will be found metastatic to the epididymis[6]. The growth is not infrequently accompanied by a hydrocele, but a varicocele is rare. Metastases occur, especially in the lungs. The cases in which post-mortem examinations were obtained reveal metastases along the course of the inguinal and abdominal lymphatics and veins, and frequently the metastasizing tumor surrounds organs in the path of its extension with or without invasion to them[1]. Lazarus reported that at least 40% of the patients were dead within 2 years, and about 27% were dead with in 1 year[1]. Judging from previously published cases the prognosis of primary epididymal carcinoma seems to be poor, and there is no established effective modality of treatment for epididymal carcinoma. Beccia et al. suggest that when malignancy is found, radical inguinal castration should be performed followed later by retroperitoneal node dissection with adjunctive chemotherapy or radiotherapy as for testicular tumors[2].

In our case, the patient was given no further therapy after orchidectomy. Therefore we must follow up the patient meticulously and if clinical metastatic signs appear or a tumor marker level becomes elevated, we should immediately start multidisciplinary treatment.

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和文抄録

精巣上体原発癌の1例

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精巣上体に原発する癌はきわめて稀である．今回われわれは32歳男子に発生した左精巣上体原発癌の1例を経験したので報告する．病理学的診断は，精巣上体未分化癌であった．除睾術後2年を経過したが，転移は認められていない．精巣上体癌の臨床および病理像に関し，過去の文献を参照し検討を加えた．

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