Case Report

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Case Report: Secondary Penile Carcinoma

H.	Hiroshi	Hashimoto
Y.	Yuji	Saga
Y.	Yoshihiko	Watabe
M.	Masato	Sasaki
S.	Sohei	Tokunaka
S.	Sunao	Yachiku

Department of Urology, Asahikawa Medical College, Asahikawa, Japan

Key Words

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Abstract

We report a case of secondary penile carcinoma with primary tumor in the pancreas. Immunoperoxidase tissue staining of carbohydrate antigen 19-9, carcinoembryonic antigen and prostate-specific antigen was useful for diagnosis of original tumor.

Hiroshi Hashimoto, MD, Department of Urology, Asahikawa Medical College, Nishikagura 4-5-3-11, Asahikawa 078 (Japan)

Introduction

The secondary penile carcinoma is a rare lesion and there are only about 200 cases in the European and American literature, and about 90 cases in the Japanese one. The primary tumors of these lesions are usually carcinomas of intrapelvic organs and very rarely extrapelvic organs. We present a case of penile metastasis whose primary focus was considered to be the pancreas with serum markers and the histochemical analyses.

Case Report

A 50-year-old man was referred to our hospital in May 1987 because of painful stiffness of the penis. Examinations revealed multiple hard nodules in the penile glans and bilateral corpora cavernosa tissue. No remarkable changes were seen on the head, neck, abdomen and extremities. Rectal examination revealed the slightly hypertrophic prostate. The testes and epididymides were normal. Abnormal groin lymph nodes were not palpable.

Incisional biopsies of the penile glans and the corpora cavernosa demonstrated adenocarcinoma of indeterminate origin (fig. 1). Various serum markers were estimated. Carbohydrate antigen 19-9 (CA19-9) and carcinoembryonic antigen (CEA) were calculated to be remarkably high (CA19-9: 56,000 U/ml, CEA: 150 ng/ml). Prostatic acidphosphatase (PAP), prostate-specific antigen (PSA) and α -fetoprotein were normal.

The abdominal CT scanning demonstrated a low-density area in the tail of the pancreas and multiple similar lesions in the liver (fig. 2). The pancreas carcinoma seemed to be the original lesion which metastasized to the liver. The endoscopic retrograde cholecystopancreatography showed a stenosis and stoppage of the pancreatic duct, which was also a sign of pancreas carcinoma (fig. 3). The examination of the gastrointestinal tract was normal.

In the examination of the genitourinary tract, only the echogra-phy of the prostate was abnormal showing an asymmetrical form. The needle biopsy of the prostate revealed adenocarcinoma in the left lobe. Histochemical analyses were performed on the specimens of the penis and prostate. Positive staining of CA 19–9 and CEA, and negative staining of PSA were demonstrated (fig. 4). These findings showed that the pancreas carcinoma metastasized to both the penis and prostate. The patient was unsuccessfully treated with tegafur and OK-432. The penile lesion grew continuously with increasing pain, then malignant priapism and massive ascites appeared. He died 2 months after first visiting our hospital. The various examinations showed that this case was a rare form of pancreas carcinoma which metastasized to the liver, prostate and penis, although histological analyses of the pancreas and liver could not be performed.

Discussion

Metastases of neoplasms to the penis are rarely seen. The changeable penile bloodstream, by the erection, is probably concerned with the difficulty of the implantation of the carcinoma cells. The most common origin of the primary malignancy is in intrapelvic and/or genitourinary organs. Through the connected bloodstream and/or the lymphstream between the penis and these organs situated closely, the direct extention and/or the dissemination of the carcinoma cells are likely to occur. The metastases from the distant organs probably occur through the major circulation by the unknown peculiar-

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Fig. 2. CT scanning demonstrates a low-density area in the pancreatic tail (arrow, a), and multiple similar lesions in the liver (arrow, b).

Fig. 3. Endoscopic retrograde cholecystopancreatography demonstrates stenosis (arrow head) and stoppage (arrow) of the pancreatic duct.

ity of the carcinoma cells. The pancreas origin is extremely rare. Our case seems to be the second case in the English literature [1].

Serum tumor markers and/or histochemical tissue staining of these markers are very useful when the determination of the original focus of metastasized lesion is difficult. In our case of adenocarcinoma of the corpus cavernosum and prostate, it was necessary to consider the possibility of the primary prostatic carcinoma, while CT scanning and endoscopic retrograde cholecystopancreatography suggested pancreas carcinoma. Positive CA19-9 and CEA with negative PAP and PSA in serum marker analyses and histochemical staining also enabled us to determine the pancreas origin. Positive CA19-9 and CEA reactions in the serum or in the cells of prostatic carcinomas are extremely rare [2, 3].

The specificity and sensitivity of PAP and PSA of prostatic carcinomas are also reported.

The treatment of this lesion is performed similarly to the original carcinomas. The prognosis is generally poor, especially in our case of metastatic lesions from distant organs, due to the extreme aggressiveness of the carcinoma cells, usually associated with multiorgan metastases. Only some cases of solitary penile metastasis of colorectal origin are treated successfully by local excision.

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