Extramammary Paget's Disease of the Penis and Scrotum with a Renal Cell Carcinoma

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Extramammary Paget's disease is a rare cutaneous malignancy and frequently associated with an underlying adnexal carcinoma and perhaps with underlying internal malignancy. In our case, genital Paget's disease was followed by the discovery of renal cell carcinoma.

We report a rare case of extramammary paget's disease of the penis and scrotum which associated with a renal cell carcinoma. (Ann Dermatol 11(1) 51-54, 1999).

Key Words: Extramammary Paget's disease, Renal cell carcinoma

Extramammary Paget's disease is a rare cutaneous adenocarcinoma, usually of epidermal origin and glandular differentiation and is frequently associated with an underlying adnexal carcinoma and perhaps with underlying internal malignancy. In our case, genital Paget's disease was followed by the discovery of renal cell carcinoma. This association has been very rarely reported. This case provides some support for the evidence in the literature that extramammary Paget's disease may be a cutaneous marker for internal malignancy.

A skin lesion with extramammary Paget's disease of the penis and scrotum was treated using the CO₂ laser. The lesion showed a temporary improvement but a relapse was experienced again.

We present a case of extramammary Paget's disease associated with a renal cell carcinoma that was treated with the CO₂ laser.

CASE REPORT

A 75-year-old man presented with a large, erythematous, well-demarcated, eczematoid, plaque involving the penis and scrotum that had been present for about 7 years (Fig. 1). The plaque had gray-white discoloration, and eczematoid changes with crusting and scaling.

In the laboratory study, the results of a complete blood cell count, liver function test, chest roentgenogram, and blood chemistry were within normal limits. However, urine analysis showed hematuria. In addition the presence of masses gave suspicion to renal cell carcinoma and renal cysts. These were noted on the abdominal CT (Fig. 2). A radical nephrectomy was performed at the department of urology and renal cell carcinoma and renal cysts were diagnosed.

Histologically, the epidermis was infiltrated by large malignant cells, singly and in clusters (Fig. 3). These cells had pale, focally foamy cytoplasm and contained pleomorphic, hyperchromatic nuclei. The cytoplasm of the Paget cells gave a positive PAS reaction that was diastase-resistant (Fig. 4) and stained with alcian blue at pH 2.5. Paget cells reacted with carcinoembryonic antigen.

Because the patient refused a surgical excision of the skin lesion and morbidity from surgery in the elderly could be high, laser vaporizations were performed 4 times during about 3 months. A power setting of 22 Watt of CO₂ laser (Clear-pulse³), with a 3-mm spot size, was used. Biopsy specimens were taken from suspicious areas. Areas with positive biopsy results were retreated using the laser. There was a clinically temporary improvement of the le-
Fig. 1. Erythematous, well-demarcated, eczematoid plaque on the penis and scrotum.

Fig. 2. The left renal cyst (△) and the renal cell carcinoma (◊) can be seen on the abdominal CT.

Fig. 3. There are clusters of malignant cells throughout the epidermis (H & E stain, × 100).

Fig. 4. The cytoplasm of the Paget cells give a positive PAS reaction that is diastase-resistant (DPAS stain, × 100).

Fig. 5. After laser vaporizations had been performed 4 times during about 3 months, there was a clinical improvement of the lesion.

Fig. 6. After the following 4 months, the erythematous, oozing patches were seen.