Painful Eruption in the Right Groin

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Patient History

A 30-year-old woman with a history of depression and anxiety syndrome was admitted to the internal medicine department for pulmonary thromboembolism and proximal deep vein thrombosis in the right lower limb. She was referred to our department for assessment of a painful skin eruption in the right groin that began 2 weeks previously.

Physical Examination

The physical examination revealed hundreds of papules, some with a vesicular appearance, clustered over erythematous-violaceous, indurated plaques located on the proximal third of the right thigh, groin, and labium majus, and in the suprapubic area (Figures 1 and 2). Enlarged lymph nodes were also palpable in the right inguinal region.

Histopathology

Histology of one of the skin lesions revealed dilatated lymphatic vessels in the upper and middle dermis that contained an epithelial tumor comprising cuboidal cells with an eosinophilic cytoplasm and a large, rounded nucleus with a prominent nucleolus and that displayed a focal papillary arrangement. The overlying epidermis was obviously raised (Figure 3).

Analysis of the enlarged lymph nodes in the right inguinal region showed that the sinuses contained epithelial tumor foci with a papillary pattern (Figure 4).

What is your diagnosis?
Diagnosis

Skin metastases of ovarian adenocarcinoma

Course and Treatment

Laboratory workup showed a CA-125 concentration of 10,633 U/mL. Computed tomography scans of the chest and abdomen revealed evidence of multiple diseased lymph nodes in the retroperitoneal region that formed clusters in the celiac, portacaval, interaortocaval, paracaval, left paraaortic, and internal and external iliac areas, with displacement of the vascular structures, as well as compression of the vena cava. Compression caused by the diseased nodes also led to ectasia and displacement of both ureters. Chest examination showed a filling defect of the peripheral vessels of the right lower lobe of the lung.

Examinations performed by the gynecology department could not confirm the ovarian origin of the patient’s symptoms, but did consider the disease to be unresectable. Chemotherapy was started with carboplatin and taxol; however, the patient did not respond to treatment and second-line chemotherapy was initiated with liposomal Adriamycin. The patient died 5 months later from recurrent thromboembolisms.

Comment

The diagnosis of skin metastases is important, as they may be the first sign of an internal cancer. In lung, renal, and ovarian cancer, skin metastases often aid tumor staging, and the location and morphology can provide clues to the primary origin of the cancer.1

Most skin metastases appear as solid, nonpainful tumors, of erythematous or violaceous appearance, and with progressive growth. Many others resemble benign processes such as lymphangioma, morphea, alopecia areata, pyogenic granuloma, erysipelas, keratoacanthoma, multiple cylindromas, chancre, hidradenitis suppurativa, herpes zoster, Kaposi’s sarcoma, or sebaceous cysts.1,2

Skin metastases from an ovarian carcinoma are very rare, and when observed, usually indicate an advanced stage of the disease.3 The metastatic pathway most often used by these genital tumors is lymphatic, with tumor cells reaching the perineal, inguinal, and lower abdominal skin through retrograde lymphatic spread from obstructed pelvic and inguinal lymph nodes.3,4

Vesicular lesions in skin metastases have been given several names in the literature: herpetiform,1 zosteriform,5,6 or lymphangioma-type lesions.4,7,8 The histological substrate responsible for the vesicular appearance of the lesions is unclear. In our patient, the appearance was apparently caused by infiltration and obstruction of the lymphatic vessels by tumor emboli in the papillary dermis, raising the overlying epidermis in comparison to the rest of the skin (Figure 3).

Conflicts of Interest

The authors declare no conflicts of interest.

References