LETTER TO THE EDITOR

Primary axillary anaplastic large cell lymphoma mimicking pyogenic granuloma clinically

Dear Editor,

According to World Health Organization (WHO) estimates, anaplastic large cell lymphoma (ALCL) is a neoplasm of large lymphoid cells with peripheral T-cell lymphoma (PTCL), representing approximately 2–3% of all lymphoid endoplasms. Clinically, ALCL presents two distinct subtypes, including widespread systemic disease and localized cutaneous disease. Systemic ALCL is an aggressive lymphoma that may exhibit secondary skin involvement except for extranodal sites. Cutaneous ALCL tends to have a solitary tumor or nodule that is often ulcerated and present on the extremities, face, or less frequently, the trunk [1]. Skin lesions present with localized, solitary papulonodular skin or subcutaneous nodules, and sometimes show ulcerated, infiltrated, necrotic, and easy-to-bleed lesions.

Pyogenic granuloma (PG) is a common benign vascular tumor. The skin lesion is composed of smooth, dome-shaped, or pedunculated papules or nodules with a glistening surface [2]. Because of the similar clinical presentation of ALCL and PG, confusion and initially incorrect diagnoses might be a challenge to surgeons, especially because ALCL is a rare and uncommon disease.

A 24-year-old man presented with a hard, painless subdermal nodule about 1 cm in size that developed over the right side axillary area about 2 years previously, and it had begun to enlarge progressively from the subdermal to epidermal layer. The well-defined, exophytic nodule with purulent discharge, measuring 3 cm × 2 cm in size, was noted on the patient’s first visit to the outpatient department (Fig. 1A). Systemic disease involvement was suspected, and examination including positron emission tomography and bone scan were performed during hospitalization. The report disclosed the hot spots over the right axillary area with suspected nodal involvement. Although biopsy was performed twice by the referring institution revealed necrotizing inflammation and clinical presentation with symptom and signs that were similar to PG, we performed tumor enucleation under highly suspected cutaneous malignancy because the wound had not healed.

Immunohistochemical staining of anaplastic lymphoma kinase (ALK)-positive ALCL showed strong nuclear and cytoplasmic staining (Fig. 1B), and epithelial membrane antigen (EMA) were strongly positive. CD-30 antigen produced a positive result on both cell membrane and Golgi region staining of the large tumor cells (Fig. 1C and D).

Positive reaction of ALK and EMA may be used to distinguish primary systemic and primary cutaneous ALCL. Differentiation between these two diseases is difficult because of lesions presenting in the skin, yet there is no evidence of systemic disease [3]. According to the aforementioned clinical presentation and immunophenotype (CD30, ALK, and EMA strongly positive), the diagnosis of systemic ALCL with local cutaneous involvement was made. Treatment was planned and the patient received combination chemotherapy by protocol (CHOP × 6) as warranted after tumor enucleation.

ALCL cutaneous lesion characteristics include rapid expansion of the tumor and surface crusting accompanied by ulceration and purulent secretion because of the formation of small abscesses within the tumor tissue [4,5]. Clinicians must remain vigilant for cutaneous manifestations that may develop before an internal malignancy is recognized and the determination of a skin lesion in the diagnosis is made. PG is a common benign skin lesion and reveals smooth, pedunculated papules or nodules. Histopathologic examination of PG might show a mass of capillaries arranged in round lobules separated by fibrous septae and differs histopathologically from ALCL, but has clinical morphology and macroscopy similar to that of ALCL.

Because of our first two biopsies showing no evidence of

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malignancy, and morphology being similar to PG, the surgeon should be watchful for persistently poor healing of the wound and make a correct decision regarding the suspicion of high malignancy.

References


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