Dual Skin Malignancy in Same Patient: A Case Report

Dhanya KS¹, Sasindran PR¹, Neena Mampilly², Anju Chacko²
¹Department of Radiation Oncology, American Oncology Institute, Kozhikode
²Department of Pathology, Baby Memorial Hospital, Kozhikode

Address for Correspondence: Dr. Dhanya K S, MD, Department of Radiation Oncology, American Oncology Institute, Kozhikode, India. E-mail: dhanyaprabhas@gmail.com

Keywords: Bowen's disease, epidermodysplasia verruciformis, nonmelanoma skin cancer, invasive squamous cell cancer.

Bowen's disease (squamous cell carcinoma in situ) has a 3-5% risk for developing into invasive squamous cell carcinoma [1]. Epidermodysplasia verruciformis is a very rare autosomal recessive genetic disorder that can produce non melanoma skin cancer in later life.

We present a case of squamous cell carcinoma of skin and basal cell carcinoma of skin in same patient with Bowen's disease and epidermodysplasia.

Background

Middle aged female with no comorbidities had presented with swelling in nasolabial region two decades back. She underwent excision of the tumor, reported as basal cell carcinoma. One decade later she developed another lesion in forehead, biopsy reported as squamous cell carcinoma with close margin. After excision of the tumor, she had received external beam radiation of dose 4500cGy in 15 fractions with electrons because of its close margins and high risk features. Eight years later, she again presented with two swellings in right forehead and she had undergone surgical excision. Biopsy from one swelling reported as basal cell carcinoma. Size of the tumor was 1 cm and depth of invasion was 2 mm. Surgical margins were negative. The second swelling's histology was showing features of Bowen's disease with epidermodysplasia. After surgery she was on follow up. Two years later, she again presented with swellings in right and left eyebrows. Surgical resection was done for both swellings. Biopsy from right eyebrow swelling was reported as basal cell carcinoma. Size of the tumor was 1 cm and depth of invasion was 2 mm. Surgical margins were positive. Left eyebrow swellings histology was showing features of Bowen's disease with epidermodysplasia verruciformis. She received external beam radiation of dose 4500cGy in 15 fractions with electrons because of margin positivity. In spite of this condition her ECOG performance status is 0 (Fully active, able to carry on all pre-disease performance without restriction). She is on follow up after treatment till now.
Figure 1: Epidermodysplasia verruciformis in low power field (10x). Keratinocytes in the granular layer are enlarged and show abundant basophilic cytoplasm.

Figure 2: Epidermodysplasia verruciformis in high power field (40x). Keratinocytes in the granular layer are enlarged and show abundant basophilic cytoplasm.
Figure 3: High power (40x) showing carcinoma in situ (Bowen's disease). Epidermis showing full thickness dysplasia with cells showing nuclear atypia and haphazard arrangement of cells with numerous mitotic figures.

Figure 4: Basal cell carcinoma in low power field (10x). Lobules and nests of basaloid cells seen infiltrating the stroma.
Discussion

Bowen's disease (squamous cell carcinoma in situ) has a 3-5% risk for developing into invasive squamous cell carcinoma [1]. Clinically, a typical Bowen's disease is a slowly enlarging erythematous patch or plaque and has a scaling or crusted surface. Bowen's disease can be pigmented or verrucous some times. It is commonly located on the lower limbs and on the head and neck. Bowen's disease is also seen subungual or periungual, palmar, genital and perianal regions [2].

About 30-50% of patients with BD may have previous or subsequent nonmelanoma skin cancers (NMSC) [3]. Personal history of NMSC is known to be an additional risk in developing secondary primary cancer, probably for the common risk factor of Ultraviolet rays [4].

Epidermodysplasia verruciformis is an autosomal-recessive genodermatosis linked to gene loci on chromosome 17 [5]. The lesions are usually associated with a large array of HPV types, most of which are specific for epidermodysplasia verruciformis. They may resemble flat warts but more commonly resemble lesions of pityriasis versicolor, which cover the torso and upper extremities. Over extensor surfaces, these warts may become hypertrophic and coalescent. In most patients, warts appear in the first decade of life. Beginning in young adulthood, in about one third of patients, the lesions undergo malignant transformation into invasive squamous cell carcinomas, particularly in sun-exposed areas.

Mohs micrographic surgery (MMS) is a surgical technique utilized for the removal and complete margin assessment of skin cancer. MMS is the treatment of choice for high-risk BCC according to the American Academy of Dermatology (AAD) and National Comprehensive Cancer Network (NCCN) [6,7].

External beam radiation with superficial X-rays or electron treatment will give high tumor control rates after surgery. We can achieve good local control with radiation in the absence grade 3-4 toxicities [8].

References


5. Peter M. Howley, in The Molecular Basis of Cancer (Fourth Edition), 2015
