Invasive Squamous Cell Carcinoma Underlying Cutaneous Horn – A Brief Case Report

Nagarekha Kulkarni *

Professor, Department of Pathology, Vijaynagar Institute Of Medical Sciences, Bellary, Karnataka, India.

ABSTRACT

Cutaneous horn is the clinical description of a hyperproliferation of compact keratin in response to a wide array of underlying benign and malignant pathologic changes. This case report describes a cutaneous horn with an underlying squamous cell carcinoma in a 70 year old male. Grossly the mass was measuring 7X7 cm, yellow - brown in colour, hard in consistency. The lesion was totally excised and sent for histopathological examination. Histopathologically, it was reported as invasive squamous cell carcinoma with cutaneous horn.

KEYWORDS: Keratin, Erythema, Terrace morphology

INTRODUCTION

Cutaneous horn (cornu cutaneum) is a relatively rare epidermal tumor and are hard conical projections arising from the skin, made of compact keratin usually derived from base keratinocytes and lacks bony core. They are so named as they resemble an animal’s horn and occur on chronic sun damaged skin [1]. Anatomic sites for horn predilection include the exposed areas on the head, the dorsa of the hands and forearms. Cutaneous horn are more common in older patients with the peak incidence in those between 60 & 70. They are equally common in males and females [2]. They are thought to result from underlying benign, premalignant and malignant pathologic lesion in 6.1%, 23.2% & 15.7% of cases respectively. Histopathologically the spectrum ranges from benign keratosis through to invasive squamous cell carcinoma [3]. This case report describes a cutaneous horn with an underlying squamous cell carcinoma in a 70 year old male.

CASE REPORT

A 70 year old male patient presented to the Department Of Surgery, Medical College Hospital, Vijaynagar Institute Of Medical Sciences, Bellary with a conical mass growing from the scalp. He had recognised a small exophytic mass 4 years back and the mass remained unchanged until 5 months prior to this visit. Since then it had grown rapidly. Patient also complained of pain and itching. There was no significant past , medical and family history. On examination a firm, horny and curved growth of around 7 cms in length with a broad base was present on the posterior aspect of the scalp. Base of the horn showed red discoulouration compared to the surrounding area. No lymphadenopathy was present. Routine blood investigation, urine examination and chest X-ray was normal. His vital signs were normal. Patient was posted for surgery, an incisional biopsy was done and sent for histopathological examination.

The specimen was received in the histopathology section of the pathology department. Grossly the specimen was measuring 7 cms in length and 7 cms in diameter at the base. External surface was hard, grey brown in colour as shown in figure-1. Cut section showed grey white hard areas as shown in figure-2 . Sections were taken and decalcified for one day later it was processed routinely and stained with haematoxylin and eosin stains (H/E).

Microscopically sections showed hyperkeratosis, acanthosis of the stratified squamous epithelium. The squamous cells were anaplastic and the nucleus was hyperchromatic. Keratinization of the individual cells, keratin pearls and mitotic figures were seen. These malignant cells were invaded deep into the dermis as shown in figure-3,4. A diagnosis of invasive keratinizing well differentiated squamous cell carcinoma was made.
DISCUSSION

Cutaneous horns, are benign, elongated, keratinous projections from the skin, ranging in size from a few millimetres to many centimetres and resembling a miniature horn. The base of the horn may be flat, nodular or crateriform. Clinically it is a hard, yellowish-brown horn, often curved, having circumferential ridges surrounded by normal epidermis or acanthotic collarette [4]. Weeson’s defined criteria (1987) for a horn that is it should be straight or curved and 2-2.5 cms long [3]. In the present case the horn was large in size and the colour was similar to the author’s description. Terrace morphology is an orderly structural dermatoscopic feature with the histopathology of orthohyperkeratosis consisting of horizontal parallel lamellae of dead keratin. As the invasive squamous cell carcinoma has the aggressive growth and behaviour, the incidence of terrace morphology is very low [5]. In the present case the terrace morphology was absent and the mass was painful. Erythema associated with the horn base was presumed to represent increased perfusion. Horn base erythema, absent terrace morphology and the presence of horn pain were found to be statistically significant features in the discrimination of invasive squamous cell carcinoma [1]. Invasive squamous cell carcinoma most likely has a height less than the diameter of the base but in the present
case the height and the diameter was same. The above mentioned features are diagnostic indicators but the confirmatory diagnosis is made on histopathological examination. Treatment of choice is deep biopsies or total excision is recommended because the underlying lesion especially malignancies cannot be detected by superficial biopsies. As malignancies should be excised with appropriate margins and evaluated for metastasis. Malignancy is present in 16-20% of cases, with squamous cell carcinoma being the most common type (94%) of horns with a malignant base [6]. To conclude any patient presenting with horn, base erythema and pain, without any terrace morphology, height of the horn less than the diameter should be diagnosed as malignancy and excised in an early stages.

ACKNOWLEDGEMENT

I sincerely thank The Director, Principal, H.O.D’s & Staff of Pathology and Surgery Department, VIMS, Bellary.

REFERENCES


*Corresponding author: Dr. Nagarekha Kulkarni
E-Mail: nagarekhaphaniraj1970@gmail.com