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PhotoDermDiagnosis

Painful hemorrhagic nodule on the chin

Vandana Mehta, Abhishek De, C. Balachandran

Department of Skin and STD, KMC Manipal, India

An 85-year-old female agriculturist with no premorbid complaints presented with a black-coloured nodular mass on the chin of two years duration (**Figure 1**). It started as a small painless nodule 2 years ago and gradually attained the present size. Few months back patient tried to remove the mass by tying hair to it following which the growth became hemorrhagic and painful. She had another asymptomatic annular lesion below the left eye for many years for which she denied taking any treatment (**Figure 2**). The biopsy findings from the nodule and the annular lesion are shown in (**Figures 3** and **4**).

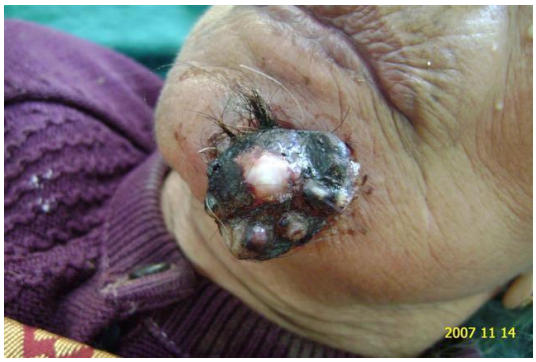

Figure 1

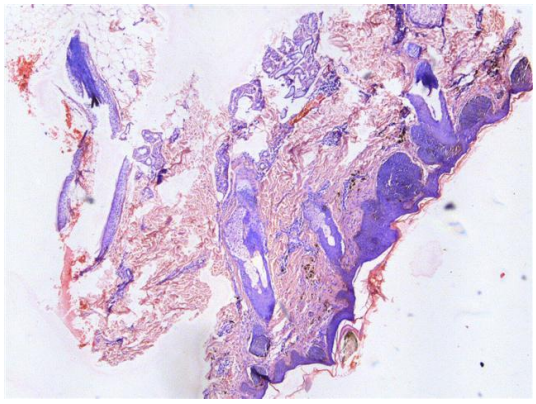

Figure 3

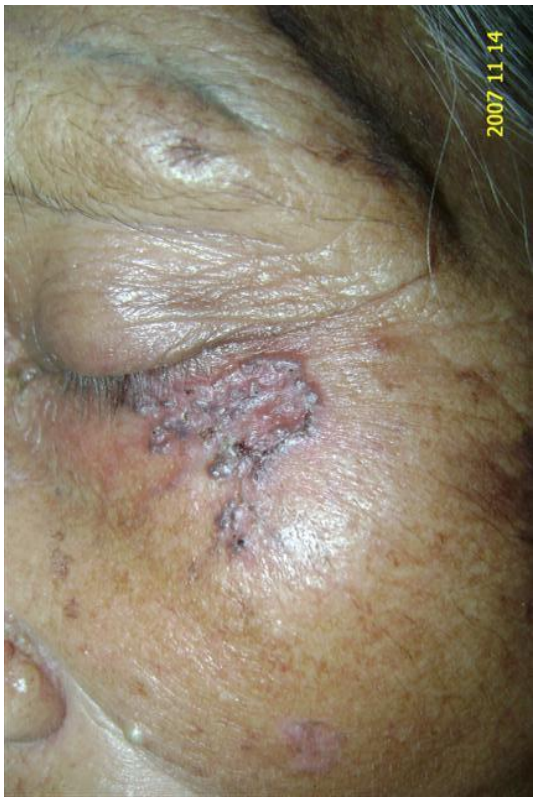

Figure 2

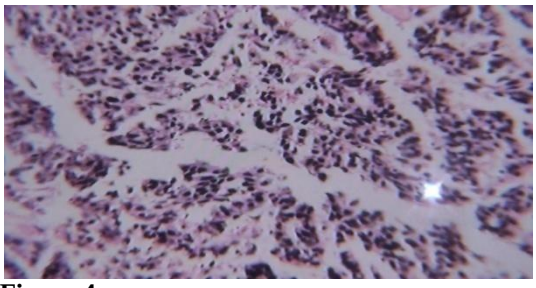

Figure 4

What is your diagnosis?

Address for correspondence
Dr. Vandana Mehta,
Assistant Professor,
Department of Skin and STD
KMC, Manipal, India
Email:vandanamht@yahoo.com

Diagnosis

Adenoid BCC on the chin with superficial BCC below the eye.

Biopsy from the nodule showed hyperkeratotic acanthotic epidermis with infiltrating islands and intertwined cords of basaloid cells forming tubules and glands with peripheral palisading in the dermis suggesting a diagnosis of adenoid BCC.

Biopsy from the annular lesion showed focally atrophic epidermis, proliferative islands of basaloid cells exhibiting peripheral palisading with scattered mitoses confirming the diagnosis of superficial BCC.

Discussion

Basal cell carcinoma (BCC) also known as basalioma or rodent ulcer is the most common skin tumour and the most common tumour in the white race with an increasing incidence worldwide of upto 10%. It usually occurs singly although the occurrence of several lesions either simultaneously or subsequently is not infrequent. About 40% of patients who have had a BCC will have one or more BCCs within 10 years.[1]

The origin of BCC has long been a subject of debate, but it is now believed to stem from pleuripotent immature cells of the epidermis. Type 1 skin, red and blonde hair, blue or green eyes, freckling in childhood, recreational sun exposure, family history of skin tumours, immunosuppressive treatment and arsenic exposure are some of the risk factors for developing a BCC. About 85% of all BCCs arise in the head and neck region of which 25% to 30% occur in the nose alone. Five clinical types known are noduloulcerative type, pigmented type, morphea-like or fibrosing type, superficial type and the fibroepithelioma. In addition there are three genodermatoses namely linear unilateral basal cell nevus syndrome, Bazex syndrome and nevoid basal cell nevus syndrome which are associated with multiple BCCs.[2]

The noduloulcerative type of BCC which is by far the most common begins as a small waxy nodule often with telangiectactic vessels on its surface. It slowly increases in size, subsequently ulcerates and is surrounded by a pearly rolled border. This represents the so called “rodent ulcer”. Most rodent ulcers possess a limited potential for growth; however, occasionally they can be infiltrative and aggressive and may destroy the eyes and the nose. The superficial BCC presents as one or several erythematous infiltrated plaques surrounded by a fine thread-like pearly border with an atrophic and smooth center.[3] Histological patterns of BCC vary widely and often do not relate to the clinical course. In order of decreasing frequency the histological subtypes known are nodular (50-54%), superficial (9-11%), cystic (4-8%), adenoid (1-7%), pigmented (6%), morpheaform (2%) and metatypical (1%). As a rule BCCs do not metastasize; however, there are rare exceptions and the metastasis rate ranges from 0.0028%-0.55%.[4]

Squamous cell carcinoma, malignant melanoma, melanocytic naevi, psoriasis, Bowen’s disease, appendageal tumours and molluscum contagiosum should be considered in the differential diagnosis.

Skin cancer accounts for 1-2% of malignancies in Blacks and Indians, compared with one-third of neoplasms in Whites. BCC comprises 75% of skin cancers in Whites, but squamous cell carcinoma represents 60-65% of skin cancers in Blacks and Indians. Although most BCCs occur

in sun-exposed areas in Whites, Blacks, and Indians, a significant percentage also develops in photo protected areas.[5] Pigmentation with melanosmal dispersion, said to protect the darker race against UVR in the 290 to 320 nm range, which is the spectrum thought to be causative in skin cancer.[6] Though rare but even nevoid basal cell carcinoma syndrome has been reported in Black race.[7] Koh *et al*.[8] in Singapore conducted a study on skin cancer and found amongst ethnic groups BCC to be most common in fairer Chinese population followed by Malays and least common in Indians.

Treatment options vary from excision with primary closure, curettage and cautery, cryotherapy and photodynamic therapy to Mohs micrographic surgery. Topically imiquimod and 5-fluorouracil have been tried for superficial BCC with excellent results.[9-12] Our patient was an elderly agriculturist of skin type 5 who used to have prolonged hours of sun exposure which probably resulted in multiple BCCs on her face, which is again not very common in this skin type. Wide excision of the tumour with primary closure was performed after which she was lost to follow up.

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