An Unusual Presentation of Piloleiomyoma

Dear Editor,

Piloleiomyomas are benign tumors arising from the arrector pili muscle of hair follicles. They usually present between the second and third decade of life.[1] Predominantly, these tumors are located over the trunk and extremities, range in size between 2 mm to 2 cm, and are painful and firm in consistency.[2]

Our patient was a 45-year-old gentleman who presented to the Department of Dermatology with chief complaints of nodular skin lesions over the left upper arm since the past 7 years. It began as a singular, small pea-sized lesion that gradually progressed to reach the current status. Lesions were asymptomatic, the major cause of concern being cosmetic disfigurement. Clinical examination revealed the presence of around 15 nodules over the left upper arm ranging from 5 cm × 4 cm × 6 cm to 1 cm × 2 cm × 2 cm in size [Figure 1]. They were nontender on palpation and demonstrated a soft-rubbery consistency. A skin biopsy from one of the nodules revealed a normal epidermis, with poorly circumscribed interlacing smooth muscle fibers located in the dermis [Figure 2]. On higher magnification these fibers were individually composed of eosinophilic cytoplasm with an elongated eel-like nuclei [Figure 3]. Immunohistochemistry for smooth muscle actin (SMA) was positive [Figure 4]. However, S100 and Ki67 staining were negative [Figures 5 and 6]. With these findings a diagnosis of cutaneous leiomyoma was made.

Table 1: Peculiar features of piloleiomyoma in the previous three case reports of painless piloleiomyoma, including ours

| Author          | Peculiar findings noted in the earlier cases of painless piloleiomyoma including ours |
|-----------------|-------------------------------------------------------------------------------------|
| Pileri et al.[3]| Site—Right cheek (a very uncommon site for piloleiomyoma)                           |
|                 | The nodule presented with central ulceration (another rare feature)                 |
|                 | Solitary nodule                                                                     |
| Bhaskar et al.[4]| Tenderness appreciated in the skin surrounding the piloleiomyoma, though the nodule itself was painless |
|                 | Solitary nodule                                                                     |
| Harford et al.[5]| The nodule presented with central ulceration                                        |
|                 | Solitary nodule                                                                     |
| Our             | Fleshy and rubbery consistency of nodules                                            |
|                 | Larger size of nodules than the conventional size witnessed for piloleiomyoma      |
|                 | Multiple nodules                                                                    |

Figure 1: Fleshy rubbery clustered nodules over the left upper arm
Figure 2: Scanner view of an H&E skin biopsy specimen from one of the nodules showing a normal epidermis with poorly circumscribed interlacing smooth muscle fibers in the dermis

Figure 3: Individual smooth muscle fibers demonstrating an eosinophilic cytoplasm and an elongated eel-like nuclei (H and E 20×)

Figure 4: Immunohistochemistry positive for SMA

Figure 5: Immunohistochemistry negative for S 100

Figure 6: Immunohistochemistry negative for Ki67

The patient was counselled regarding his treatment. However, he declined any surgical intervention.

Painless piloleiomyoma has not been a commonly encountered entity. A thorough literature search revealed only three case reports manifesting the painless display of piloleiomyoma.\(^3\)\(^-\)\(^5\) Interestingly, in all these three cases piloleiomyoma presented as a solitary nodule, a feature dissimilar to our case, which presented as multiple nodules. Other salient features of the previous three cases including ours have been summarized in Table 1.

With evaluation of our case and study of previous reported cases of painless piloleiomyoma, the authors would like to highlight that the painless quality of these lesions are not only a rarity, but painless leiomyomas are usually accompanied by other atypical findings that need vigilant identification. As far as treatment is concerned, surgical excision is the only available therapeutic modality at present, and given the high recurrence rate after surgery, this line of therapeutic intervention would not be practical with existent multiple nodules. To conclude, further exploration in the emergence of a concrete therapeutic modality in this setting is needed, as this domain still remains vastly unexplored.
Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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Dear Editor,

The repair of scalp defects, not suitable for primary closures, can be problematic due to the limited mobility of the scalp tissue. Traditional local flaps have a limited role at this level to restore moderate size defects. Second intention healing or skin grafting are reasonable options, especially in older patients. However, both methods inevitably result in suboptimal cosmetic outcomes with depressed, dyschromic, and hairless scars. Therefore, new reconstruction approaches are always welcome.

The “hatchet” flap is a procedure first described by Emmett in 1977, that has been successfully used in recent years to repair wounds in different body areas, including the craniofacial region, trunk, and limbs.[1,2] In particular, the modified double hatchet flap (DHF) technique has shown excellent results in the reconstruction of moderate to large scalp defects.[3,4]

We report our favorable experience with the use of DHF in 22 patients (nine females, 13 men) with skin defects in different scalp sites, following tumor excisions. The patient ages were 64-88 years (mean age 71 years). Defect sizes ranged from 2.5-4.7 cm (mean 3.3 cm). Further data are indicated in Table 1.

| Patients | Age (years) | Aetiology | Defect site | Defect size (cm) | Follow-up (months) |
|----------|-------------|-----------|-------------|------------------|-------------------|
| 22 (9 f, 13 m) | 64-88 | 10 scc, 4 ka | Mid-scalp | 2.5-4.7 | 1-10 (mean 71) |
| | | | parietal/temporal | | (mean 3.3) |
| | | | frontal/temporal | | (mean 5.2) |
| | | | occipital | | |

Defects were excised, and two hatchet flaps were incised on either side of the defect to the defect. The length of each flap was approximately 1.5 times the wound diameter, while the width of the pedicle equaled the defect radius. Dissection was usually performed at a subgaleal level. The flaps were advanced and rotated to cover the primary defect, while the opposite poles were closed in a V-Y fashion. Flap edges were sutured with simple, interrupted,