INTRODUCTION

Trichostasis spinulosa (TS) is a common but under-diagnosed disorder of the pilosebaceous follicles in which there is follicular hyperkeratosis of a dilated hair follicle with retention of telogen hairs. Clinical presentation of this disorder can be confused with comedogenic acne, keratosis pilaris, eruptive vellus hair cysts, and Favre–Racouchot syndrome. A case of a non-pruritic variant of TS in a 16-year-old boy is reported because of its unusual location as well as presentation in the lower eyelid, giving an appearance of a double eyelid. Although TS is common, it is mostly under diagnosed and henceforth underreported hair follicular disorder. The differential diagnosis of this disorder should be always kept in mind even if it presents in unusual location to avoid unnecessary application of various therapeutic modalities.

CASE REPORT

A 16 year old boy presented at the outpatient Department of Ophthalmology with chief complaints of continuous irritation of the right eye along with infrequent watering since 5 months. There was no history of loss of vision. Apparently, the patient also noted a small swelling over the right lower eyelid which was gradually increasing in size thereby causing a cosmetic problem as well. Patient’s symptoms of irritation and watering were also increasing with the increment of the size of the swelling, but there was no history of pruritus. There was no familial history of such lesion. The patient denied any comorbidity and did not take any regular medication for any other disease.

On local examination, the right lower eyelid had an appearance of a double lid with the formation of an inner pseudo-eyelid. The apparent inner pseudo-eyelid arose from the caruncle and extended laterally and parallel to the normal lid, as a fold of skin giving it a double eyelid appearance. This pseudo-eyelid had several black,
pinpoint follicular lesions with soft hairs projecting from the surface [Figure 1]. His systemic examination was unremarkable and routine hematological, and biochemical tests such as hemogram, urea, creatinine, and blood sugar were also within normal limits.

Since the patient had also complained of unsightly look for the swelling, excisional biopsy of the lower lid lesion was done, and the sample was sent to the Department of Pathology for histopathological examination.

**Pathological examination**

Grossly, partly skin covered small elongated mass measuring 1 cm × 0.5 cm having tiny black spots seemed to be hairs was received. Whole of the tissue was processed for histopathological examination.

On microscopic examination of the hematoxylin and eosin, stained sections, a dilated infundibular region of follicles lined by stratified squamous epithelium was seen. Inside the dilated follicle, multiple longitudinally as well as transversely cut thin vellus hair shafts were present along with increased amount of lamellar keratin [Figure 2] confirming the diagnosis of TS.

Patient’s postoperative period was uneventful. Even after a follow-up of 2 months, there was no complaint of watering again on the part of the patient.

**DISCUSSION**

TS, a follicular disorder, was first reported by Nobl in 1913 as a peculiar follicular disorder characterized by protruding plugs in groups of hair follicles which on microscopic examination proved to be bunches of lanugo hairs embedded in horny mass.\[^2\]

In the literature, two types of TS have been described: The classic one is nonpruritic type which is often seen in the elderly located on the face, and the second variety is pruritic type, usually seen on the trunk and upper extremities in young adults.\[^1\] Although more than two hundred cases have been mentioned in the available literature,\[^4\] the unusual location on the eyelid, causing a cosmetic problem along with a nonpruritic presentation in a relatively young age were the most interesting findings in the present case.

The etiology of TS is not known for certain. Congenital factor like dysplasia of the hair follicles, as well as external factors such as dust, oils, ultraviolet light, heat, and irritants, have been proposed.\[^1,4,5\] One hypothesis is that hair shaft entrapment is the result of hyperkeratosis in the follicular infundibulum, thus producing an obstruction to normal hair shedding.\[^4,6,7\]

Differential diagnosis of facial TS includes comedogenic acne, keratosis pilaris, eruptive vellus hair cysts, and Favre–Racouchot syndrome. There are various modalities both invasive and noninvasive which can help to make a correct diagnosis. Among the noninvasive diagnostic procedures, use of dermoscopy has been proved to be useful which shows the classic hair tufts inside hair openings.\[^8\] In this case, the cosmetic predicament was the main concern of the patient for which surgical excision was done, and diagnosis was confirmed on histopathological examination.

TS most often presents as an isolated finding, but it can also be detected as secondary to other expansile lesions.

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**Figure 1:** Photograph showing right double lower eyelid with a pseudo-lid having several black follicular lesions with soft hairs projecting from the surface

**Figure 2:** Microphotograph (a) and (b) showing transverse sections of multiple thin vellus hair shafts (arrow) and keratinous material in dilated hair follicles in different areas of the lesion (H and E, ×400)
that narrow hair infundibulae, such as melanocytic nevi, seborrheic keratoses, syringomas, or nodular basal cell carcinomas, or rarely, as the result of folliculosebaceous hamartomas. In the present case, association with any other underlying cause was not detected on histopathological diagnosis.

Although there is no cure for TS, several treatment regimens have been tried with varying success. Apart from the local application of 0.04% or 0.10% tretinoin gel and hydroactive adhesive pads, keratolytic preparations can also be implemented either as a sole therapy or after the application of a wax depilatory. However, depilation can be time-consuming if large areas require treatment. The patient was given the option of both medical and surgical treatment for the disorder, and the patient opted for surgical treatment because of cosmetic problem and cost effectiveness. The patient subsequently did not develop any further similar complaints such as irritation and watering in the period of follow-up for 2 months.

Hence, it can be concluded that although TS is common, it is mostly under diagnosed and henceforth underreported hair follicular disorder; thus, the differential diagnosis should be always kept in mind even if it presents in unusual location to avoid unnecessary application of various therapeutic modalities.

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Conflicts of interest

There are no conflicts of interest.

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