IDIOPATHIC TRICHOCLASIS

REPORT OF A CASE *

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Idiopathic trichoclasia was first described by Jackson,¹ Sabouraud,² in a descriptive article on the subject, distinguished three forms of the disease:

1. A rare form of trichorrhexis that is localized in and involves the entire mustache, the hairs presenting five or six pearls or nodules from 3 to 5 mm. apart, and in which relapses continue in spite of the avoidance of trauma.

2. A trichoclasia involving circumscribed rounded or oval patches on the scalp in which hairs are broken off from 6 to 8 mm. from the skin, and in which the skin appears normal, the plaques healing spontaneously, but new areas appearing on other parts of the scalp.

3. A trichoclasia occurring in patches on the scalp, the skin of the plaque being dry, thickened, rough and bound down.

I am at present observing a case of trichoclasia that is similar to the second group of Sabouraud's classification except that the plaques do not heal spontaneously but persist in the same locations in spite of the avoidance of mechanical injury, as in group 1 of his classification. Marcoglou ³ described a case of idiopathic trichoclasia of the Jackson-Sabouraud type conforming in all respects to type 3 of Sabouraud's classification, Jeunelme and Bloch ⁴ described two similar cases.

REPORT OF CASE

Miss E. C., aged 51, was referred to me because of a condition of the scalp of two years' duration. The history was that two years previously a dollar-sized circumscribed area of broken hairs appeared on the left parietal region of the scalp, to be shortly followed by an oval-shaped similar lesion on the vertex. There was no history of trauma or hairdressing of any type, as the patient had been confined for the past ten years to a sanatorium because of dementia praecox of paranoid type.

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Antiseptics and parasiticides of various types had been applied without avail. The hair had been clipped and shaved three or four times. Each time the hairs of the involved area grew only to 6 or 8 mm. in length and then appeared to stop growing. There were no subjective symptoms.

On close examination, the scalp presented two lesions, one on the left parietal region about the size of a dollar, the other oval in outline, localized on the vertex and measuring approximately 3 or 4 cm. in width and 6 or 7 cm. in length. These plaques were sharply defined, and the hairs of the patches were approximately from 6 to 8 mm., in length, giving the gross appearance of having been clipped. With the naked eye one or two grayish nodosities could be discerned on the shaft of the broken hairs. However, the hairs were not loosened, and resisted pulling as normal hairs do. The skin of these patches appeared the same as that of the rest of the scalp. There was no scaling, roughening, thickening or erythema, nor did the skin of the involved areas appear to be bound down. The follicular openings were normal.

Microscopic examination of hairs taken at random from the patches revealed that their ends presented a frayed or brushlike appearance. On the shafts were seen nodular swellings (trichorrhexis nodosa). A few of the hairs examined presented two such nodosities; in the majority of them, however, only one was found. Splitting of the shaft of the hair (trichoptilosis) was observed adjacent to these points of bulging of the cortex. Segments that had not been completely severed gave the appearance of two brushes being pressed end to end. Various stages of transverse breaking (trichoclasis) could be readily observed at these points. The
bulbs appeared normal; cultures of several of these hairs were negative. The hairs of the eyelashes, eyebrows and axillary and crural regions were normal. Aside from her neurologic history, the patient had been hospitalized in 1922 for pulmonary tuberculosis from which she apparently completely recovered.

**COMMENT**

The disorders with which trichoclasia or trichorrhexis nodosa may be confused are: monilethrix, trichosporosis nodosa, pseudopelade or folliculitis decalvans, tinea of the scalp and, possibly, alopecia areata and favus. The differentiation of trichoclasia from these conditions, however, is not difficult.

Monilethrix is usually congenital. The "swellings" are fusiform, with atrophy of the shafts between the nodosities. The breaking occurs at these points of atrophy and not within the nodosities. There is often an associated keratosis pilaris.

In trichosporosis nodosa or piedra the nodules are located entirely outside the hair shaft at first, the cortex being invaded only after the cuticle becomes dissolved or broken, and the nodosities are concretions of a fungus growth (Trichosporon giganteum).

In pseudopelade or folliculitis decalvans there is follicular inflammation followed by loosening and falling of the hair resulting in a bald, cicatrical plaque, the border of which may present pustules or crusted points.

Tinea capitis is rarely seen in adults; the plaques are scaly, and Trichophyton can readily be demonstrated.

In alopecia areata the onset is sudden and the hair falls from the involved area, leaving smooth, entirely bald patches.

In favus, the lesions are pinhead to pea sized, saucer-shaped, yellow crusts, and the causative organism (Achorion schoenleinii) can readily be demonstrated.

Concerning the etiology of trichorrhexis nodosa and trichoclasia, opinions are at variance. Many consider mechanical injury to hair when its nutrition is below par as the cause, while others believe the disease to be of bacteriologic origin.

The common forms of trichoclasia and trichorrhexis nodosa in which the hair breaks at various lengths, with or without nodule formation, Sabouraud attributed to trauma incident to hairdressing plus repeated alkaline shampoos. He proved this to be the origin by demonstrating the condition in shaving brushes, and he produced in his own beard, by soaping it twice daily for two weeks, a condition analogous to that of "pearl disease," known to hairdressers. These forms may be cured by clipping or cutting the hair below the level of involvement, and by the avoidance of further trauma.
In the case presented, there was no history of hairdressing of any kind, nor did clipping and shaving of the hair result in cure or improvement of the condition. The patient is hospitalized and has not been observed to trouble her scalp. Treatment of all types up to the present has not influenced the condition.

Sabouraud considered that the series of trichoclines is not complete. This case simulates most nearly the second group of his classification for idiopathic trichoclines, but differs from this class in that the plaques do not heal spontaneously but remain singularly persistent. I do not know whether or not this case should be classified separately.

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