

CASE REPORT

WHITE PIEDRA IN INDIA

By

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Between the two types of piedra, white piedra is less frequently reported (Emmons, Binford & Utz, 1964; Fischman, 1965), and most of the reports come from South America. White piedra occurs commonly in both the temperate and the tropical regions of South America, Europe and the Orient, but rarely in the United States (Emmons, Binford & Utz, 1964). In Columbia, Paraguay and Japan, it is found predominantly in females, but in Brazil and Guiana, it is more common in males (Simons, 1954). In Europe, white piedra is commonly localised on the beard and the moustache, but in Brazil, it is found mostly on the scalp hairs (Fischman, 1965). Piedra occurring on the axillary (Leao, 1941) and pubic hairs (Patterson, Laine & Taylor, 1962; Londero, Ramos & Fischman, 1966-67) is also on record. From India, so far there is no record of piedra in the literature. The present communication is the result of investigation of such a case.

Case History. The patient, a South Indian housewife of about 40 years had some nodular structures growing on her scalp hair for the last 5 years. Excepting some sense of irritation occasionally on the scalp and some gritty sensation during combing the hairs, she had no other complaints. There was no loss of hair and the scalp was also normal. Her general health and the hairs on other parts of the body were not affected. The reason for seeking medical advice was mainly cosmetic.

On inspection, the hairs showed small, greyish nodules, firmly attached to the hair-shaft at variable intervals. The nodules were firm not easily detachable and about twice the diameter of the hair.

Mycological Investigation. A piece of hair containing nodules was mounted with 10% KOH solution for direct microscopic examination and a few pieces of affected hairs were inoculated on Sabouraud's dextrose agar (Sda) and Sda with chloramphenicol and cycloheximide. The culture tubes were incubated at 22°—25°C.

Results: Direct microscopy. The hair showed mycelial mass containing arthrospores (2-4 micron in diameter) surrounding the hair shaft (fig 1). Some of the mycelia were found to penetrate the hair shaft.

Culture. After 4 days, creamy, yeast-like colonies developed on Sda which subsequently became rugose and furrowed (fig. 2). On microscopical examination

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typical characters of *Trichosporon* Behrend species containing hyaline mycelia, blastospores and arthrospores (fig. 3) were found. No growth was observed on Sda with antibiotics.

The organism did not ferment sugars but assimilated glucose, galactose, maltose, sucrose and lactose. It could not assimilate potassium nitrite.

Cultural, morphological and biochemical features collected together led to the identification of the organism as *Trichosporon cutaneum* (de Beurm, Gougerot et Vaucher) Ota and evidently the disease was diagnosed white piedra.

Comments. High humidity, abundant rainfall, swimming or washing hairs in stagnant water (Lewis, Hopper, Wilson & Plunkett, 1958) and use of hair oils (Simons, 1954) are apparently the predisposing factors for white piedra. Persons with straight hairs are said to be particularly susceptible (Simons, 1954).

Although the favourable conditions for the development of white piedra are prevailing in the country, it is surprising to note that the disease has never been reported from India. The cause may be attributed to the fact that the disease is otherwise innocuous and may be mistaken for pediculosis; or the affected persons can be relieved of the condition by shaving or simply thorough brushing of the hairs without any medical help.

As the condition is symptomless, the occasional irritation of the scalp complained by this patient may be purely psychological.

Summary. The first case of white piedra from India, caused by *Trichosporon cutaneum*, occurring on the scalp hair of a South Indian lady has been reported.

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