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BLACK PIEDRA
(Case report)

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Summary

A case of black piedra of scalp in a female resident of Varanasi is reported and the differentiating features of the two varieties of piedra described.

Piedra is a rare fungal infection of the hair. It is of two types, namely the black and the white. Black piedra is caused by *Piedraria hortai* and is characterised by multiple firmly adherent gritty nodules which involve hairs of scalp, beard, moustaches and pubic regions. White piedra is caused by *Trichosporon beigelii* and forms multiple, soft, white, light brown nodules on the hairs of beard, moustache and pubic regions. The fungal mass is less organised than black piedra and the nodules can be detached easily from the hairs. The fungus grows both within and outside the hair shaft so that it gets weakened and breaks easily. The nodules vary in size from microscopic to 1 m.m. in diameter. The underlying skin is not affected by the disease and the nodules are carried away on the hair shaft as it grows.

On microscopic examination the nodule is seen to be composed of a mass of fungal cells. The crushed nodule of black piedra in 10% KOH shows branched hyphae 4 to 8 μ in diameter held together by a cement-like substance. The septate hyphae appear as chains of stout thick walled cells resembling arthrospores. A crushed nodule reveals asci containing 2 to 8 single celled fusiform ascospores with a single polar filament at each end. In the nodule of white piedra the mycelial elements are usually perpendicular to the surface of the hair. The hyphae segment into oval to rectangular cells 2 to 4 in diameter. Budding blastospores may be seen but asci are not seen.

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Case Report

A 30 year old female resident of Varanasi came with complaints of multiple nodes on the scalp hairs for three months. She also noticed that she was loosing larger number of hairs than before on combing. She gave the history that her mother-in-law noticed similar nodes on the hairs for one month.

On examination the hairs showed firmly adherent brown nodules which were less than 1 m.m. in size (Fig. 1). They were composed of compact cellular substance which surrounded the hair shaft. On crushing the nodules in 10% potassium hydroxide these were found to be composed of dichotomously branching hyphae which showed septations Chains of thick walled cells resembling arthrospores were present

(Fig. 2). Numerous fusiform asci were also seen containing 2 to 8 single celled ascospores (Fig. 3) which enabled differentiation from white piedra. The culture on Sabouraud's agar medium at room temperature developed smooth greenish black colony the centre of which was raised and cerebriform.

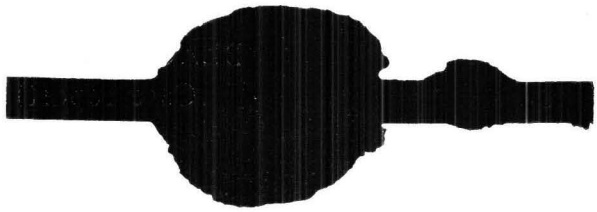

Fig. 1 Black piedra nodules on hair

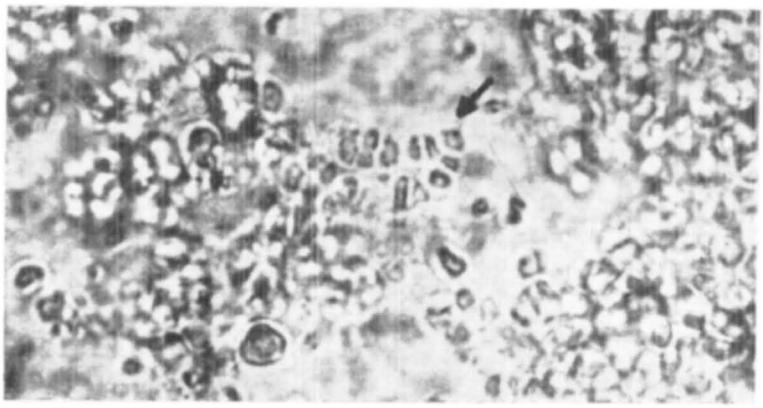

Fig. 2
Chains of thick walled cells in a crushed nodule of Black piedra

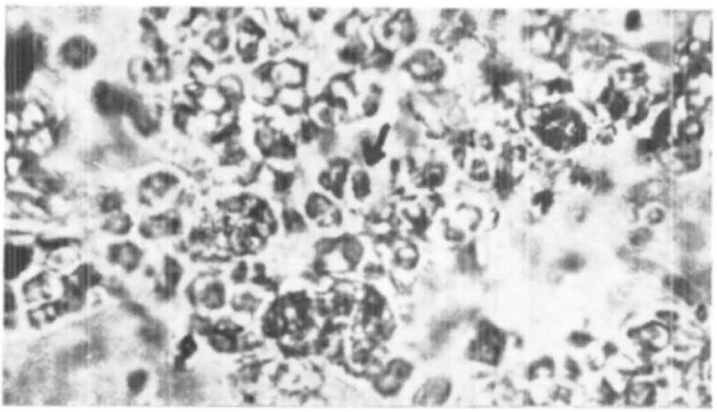

Fig. 3
Asci containing ascospores in a crushed nodule of Black piedra

Comments

Piedra was first described by Beigel as fungal infection of the hair and its black variety was described by Malgoi-Hoes[1]. Horta[2] isolated the fungus and named it as *Trichosporon hortai*. Fonseca and Area Leao[1] renamed the organism as *Piedraria hortai* because it was related to Ascomycetes and a sexual stage was found. It is said to occur in humid tropical countries but so far it has been found only in South America, South East Asia, Indonesia and Africa[1,3]. Our patient had been residing in Varanasi, Uttar Pradesh for five years and before that in Bengal. She never went out of the country nor did she have any foreign visitor in her family.

References

1. Rippon JW : Superficial Mycosis, Medical Mycology, W. B. Saunders Company Philadelphia, London, Toranto, 1974, p91.
2. Horta P : Sobre Una nova forma de piedra Mem Inst Osw Cruz 1911, 3 : 87.
3. Emmons CW, Binford CH, Utz JP and Kwan-Chung KJ : Black piedra, white piedra and trichomycosis axillaris, Medical Mycology, 3rd Ed Lea and Febiger, Philadelphia 1977, p 181.

Announcements...

International Congress of Dermatology

The XVI International Congress of Dermatology will be held in Tokyo, Japan, May 23 to 28, 1982. The Congress includes a scientific program (special lectures, case presentation, advances in dermatology, symposia, courses, workshops, informal discussion groups, free communication, poster communications, Japanese Dermatological Association seminars, and a scientific exhibition) and social events (performance of traditional Japanese Kabuki drama, a concert with a world-famous conductor, a short suburban sightseeing tour, and programs for accompanying persons). The Congress site is the Hotel New Otani, Tokyo's prestige hotel which has been the site of many international congresses. English, French, Spanish, German and Japanese may be used in the Congress, and simultaneous interpretation will be provided during the main educational sessions.

The First Circular including detailed information regarding registration, hotel accommodations and group travel is now available on request to :

Prof. Makoto Seiji, M.D., Secretary General, the XVI International Congress of Dermatology, C. P. O. Box 1560, Tokyo 100-91, Japan.

All interested persons are cordially invited to participate in the Congress.

(Also see page No. 324)