



PIC QUESTION OF THE WEEK: 10/27/06

Q: What is the condition known as piedra and how is it treated?

A: Piedra (Spanish word meaning *stone*) refers to a superficial fungal infection that affects the hair shaft. It is typically asymptomatic, but does produce an unsightly appearance of hair. Piedra affects males and females of all ages. The condition is classified into two main types, white piedra and black piedra. White piedra results from fungal infection by one of six species of the genus *Trichosporon*. *T. asahii*, one of the most common causative species, can be found in soil, air, water, vegetable matter, sputum, or on body surfaces. Close contact with infected animals including monkeys, horses, and dogs may result in human infection. White piedra generally occurs in temperate and semitropical regions and is quite common in parts of the southern United States. It manifests as lightly pigmented, soft nodules that loosely attach to hair follicles in the pubic or axillary region, moustache, eyebrows, or eyelashes. In Brazil, white piedra generally affects the scalp. Black piedra rarely occurs in the United States and is more common in hot, humid, tropical regions. This form of piedra is caused by *Piedraia hortae* and primarily affects scalp hair. Patients present with darkly pigmented nodules that vary in size and are firmly attached to hair follicles. Interestingly, black piedra may be identified by a gritty texture and a metallic sound when brushing the hair. *P. hortae* can be found in the soil as well as in stagnant water and crops. In Panama, certain Indian tribes cultivate black piedra for use as a dye to darken hair. Both forms of piedra can result in hair loss due to weakening of the hair shaft. To date, the most effective treatment for both forms of piedra is shaving or cutting the hair. Topical antifungals such as imidazoles (e.g. econazole, clotrimazole, etc.), ciclopirox, selenium sulfide, and the antimicrobial chlorhexidine can also be utilized in the treatment of white piedra. Genital white piedra can be difficult to treat and usually requires the combination of shaving plus topical antifungals. The oral antifungal terbinafine may be effective in the treatment of black piedra. It is common for piedra infections to recur in areas such as the scalp and genitalia and repeated courses of treatment may be necessary. In general, piedra has a good prognosis. In immunocompromised patients, specifically those with infection from *T. asahii*, disseminated infection can produce widely distributed papules and purpuric nodules. Aside from self-image issues such as appearance, possible loss of hair, and occasional need to shave, piedra is a fairly harmless condition.

References:

- Schwartz R. Superficial fungal infections. Lancet 2004;364:1176-9.
- Schwartz R. Piedra. eMedicine. <http://www.emedicine.com/DERM/topic788.htm> (accessed 2006 Oct 23)

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