

## Scales on the scalp

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### Case History

A five-year-old boy presented with a six-week history of scales, flaking and crusting of the scalp. He had mild pruritus but no pain. He did not have a history of atopy and there were no pets at home. Examination of the scalp showed thick, yellowish dry crusts on the vertex and parietal areas and the hair was adhered to the scalp in clumps. There was non-scarring alopecia and mild erythema (Figure 1 & 2). There was no cervical or occipital lymphadenopathy. The patient's nails and skin in other parts of the body were normal.



Figure 1



Figure 2

### Figure 1 & 2.

Thick scales on the scalp which are adherent to the proximal part of the hair shaft and binding tufts of hair.

### Question

1. What is the most likely diagnosis?
2. What are the associated conditions?
3. What investigations are indicated?
4. What is the treatment for this condition?

### Answer

1. Tinea amiantacea.
2. Scalp psoriasis, seborrhoeic dermatitis, tinea capitis, pyogenic infections and lichen planus.
3. Wood's lamp examination, potassium hydroxide examination and culture of hair with crust to exclude fungal infection.
4. Keratolytics for isolated tinea amiantacea, topical steroids in patients with associated psoriasis or eczema.

## Discussion

Pityriasis amiantacea (PA), also known as tinea amiantacea, is a papulosquamous disorder found on the sebum-rich areas of the scalp. Its exact aetiology is unknown but it is believed to be a reaction to an underlying inflammatory disease. Pityriasis amiantacea presents as tenaciously adherent scales surrounding the base of scalp hairs and it can result in hair loss. It occurs more commonly among children than adults. It can be an isolated condition or associated with other dermatological diseases such as psoriasis, seborrhoeic dermatitis, tinea capitis, pyogenic infections, atopic eczema, alopecia areata and lichen planus.<sup>1</sup> The silvery or yellowish scales are thick and asbestos-like. They encircle the hair shafts and may bind down tufts of hair. Reversible alopecia may occur.

Psoriasis and seborrhoeic dermatitis are the most common diseases associated with tinea amiantacea. Psoriasis and seborrhoeic dermatitis are characterised by scales attaching in layers to the hair shaft but the hair does not become matted. The skin and nails should be

examined for presence of other dermatologic conditions. Nail pitting, however, is not a useful diagnostic sign as it is commonly seen in psoriasis, alopecia areata, lichen planus and eczema.<sup>3</sup> Wood's lamp examination should be performed to exclude tinea capitis. Potassium hydroxide examination and fungal culture of the scales and plucked hairs are also useful to diagnose fungal infections of the skin.

Pityriasis amiantacea can be treated effectively by using keratolytic agents, such as salicylic acid and coal tar. Keratolytic agents help to remove thick scales and enhance penetration of topical steroid.<sup>2</sup> Topical steroid is effective for associated psoriasis or eczema as it reduces inflammation and pruritus. Topical antifungal agent such as ketoconazole shampoo is useful in treating seborrhoeic dermatitis while oral antifungal is recommended only for confirmed cases of tinea capitis. Antibiotics may be prescribed if Staphylococcus superinfection is suspected.<sup>1</sup> Infliximab, an anti tumor necrosis factor-alpha (TNF- $\alpha$ ) inhibitor, has been found to be effective in treating recalcitrant tinea amiantacea associated with psoriasis.<sup>4</sup>

## References

1. Abdel-Hamid IA, Aghra SA, Moustafa YM, et al. Pityriasis amiantacea: a clinical and etiopathologic study of 85 patients. *Int J Dermatol.* 2003; 42(4): 260-4.
2. Bettencourt MS, Olsen EA. Pityriasis amiantacea: a report of two cases in adults. *Cutis.* 1999; 64(3): 187-9.
3. Jadhav VM, Mahajan PM, Mhaske CB. Nail pitting and onycholysis. *Indian J Dermatol Venereol Leprol.* 2009; 75: 631-3.
4. Pham RK, Chan SC, Hsu S. Treatment of pityriasis amiantacea with infliximab. *Dermatology Online Journal.* 2005; 15(12):13.