# Achromatic atrophic macules and patches of upper extremities

A 55 year old man presented with numerous round achromatic atrophic macules and patches varying in diameter from 0.5-1 cm on his both arms [Figure 1]. The lesions first appeared 4 months earlier and gradually increased in number. The lesions later became atrophic. There was no history of using drugs and topical corticosteroids. The rest of his general examination was unremarkable. A potassium hydroxide preparation showed numerous pseudomycelial hyphae and yeast cells with typical 'spaghetti and meatballs' appearance [Figure 2].

Punch biopsies were done: One from the atrophic lesion [Figure 3a] and the other from the normal skin.

The biopsy specimen of the atrophic lesion revealed multiple short hyphae and spores in the cornified layer [Figure 3a] whereas fungal elements were not observed from the normal tissue [Figure 3b]. Retiform effacement, epidermal thinning, and mild periadnexal lymphocytic infiltration were present. Verhoeff's elastic stain showed no alteration of elastic fibers in the dermis compared with that of normal tissue. The patient was treated with oral itraconazole (200 mg daily for 3 weeks) and showed improved atrophic lesions and mycological recovery.

### WHAT IS YOUR DIAGNOSIS?



Figure 1: Numerous round achromatic atrophic macules and patches varying in diameter from 0.5-1 cm on the arm

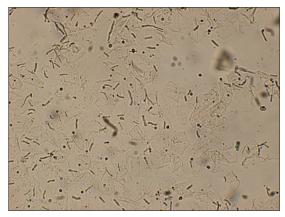


Figure 2: Multiple short hyphae and spores shows 'Spaghetti and meatball' appearance in a KOH preparation

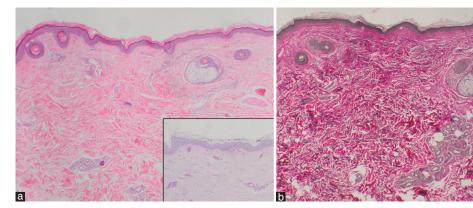


Figure 3: (a) Histopathologic examination of atrophic lesion shows retiform effacement with epidermal thinning (H and E,  $\times$  40); inset with biopsy specimen of atrophic lesion shows multiple short hyphae and spores visible in the cornified layer (PAS stain,  $\times$  100); (b) Histopathologic examination of atrophic lesion shows no alteration of elastic fibers in the dermis (Verhoeff's elastic stain,  $\times$  40)

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## Answer: Atrophying tinea versicolor

#### DISCUSSION

Pityriasis versicolor is a chronic superficial fungal infection that clinically shows red colored, hypo and hyperpigmented lesions involving upper trunk, head, and neck area. [1] 'Atrophying tinea versicolor' is an atypical clinical form of pityriasis versicolor proposed by Crowson and Magro. [2] According to the reported cases, there are depressed macules involving the trunk and shoulder girdle area. Histologically, in addition to pityrosporum spores and hyphae visible in the cornified layer, skin biopsy of atrophic lesion is accompanied by poikilodermatous alteration, perifollicular elastolysis, and lymphocytic interface dermatitis. [2-4] However, alteration of elastic fibers are not always seen as it is in our case. [2]

Atrophying tinea versicolor needs to be distinguished from other diseases with cutaneous atrophiclesion, such as systmemic lupus erythematosus, dermatomyositis, morphea, anetoderma, atrophoderma, cutis laxa, mycosis fungoides, lichen sclerosus, and atrophy due to intralesional steroid therapy. [3] Mycological examination is always helpful to exclude other clinical conditions and biopsy can also confirm fungal elements in stratum corneum. Among those clinical conditions, atrophoderma of Pasini and Pierini is clinically similar to that of atrophying tinea versicolor. A diagnostic feature of atrophoderma of Pasini and Pierini is that they show thickened collagen bundle on the histopathologic examination.

Some reports suggested that the atrophic lesion of pityriasis versicolor might be related to the application of topical steroids. These workers have postulated that greater penetration of the drug through the weakened outer two-third of corneal layer affected by pityriasis versicolor may be responsible for the atrophy. On the other hand, Crowson and Magro. Peported that only one patient out of 12 atrophying tinea versicolor patient used topical steroid and therefore it was difficult to say that the atrophic lesion is due to topical steroid. They suggested that the delayed-type hypersensitivity to the

epicutaneous antigens derived from the pityrosporum fungi and direct microbial effect upon the nuclear factor kappa-light-chain-enhancer of activated B cells (NF-kB) system could have provoked the atrophic lesion. With small number of reported cases, the cause of atrophying tinea versicolor is still not clear and further evaluation is therefore needed. The prognosis of the disease is relatively good and the mycological recovery and disappearance of atrophic lesion can be achieved with systemic triazolic therapy or combined therapy of systemic triazole and topical imidazole.<sup>[2-4]</sup> Dermatologists should include atrophying tinea versicolor in the differential diagnosis of the atrophic lesion of skin.

# Joon S. Park, In S. Chae, In Y. Kim, Dong K. Ko, Hyun Chung, Sung W. Lee<sup>1</sup>

Department of Dermatology, Daegu Catholic University Medical Center, Daegu, <sup>1</sup>Oracle Skin Clinic, Daegu, Korea

> Address for correspondence: Dr. Joon Soo Park, Department of Dermatology, College of Medicine, Catholic University of Daegu, 3056-6, Daemyung-4-Dong, Nam-gu, Daegu, Korea. E-mail: g9563009@cu.ac.kr

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