BRIEF NOTES ON *EPIDERMOPHYTON RUBRUM*,
CASTELLANI, 1909 (*TRICHOPHYTON PUR-
PUREUM*, BANG, 1910) AND *TRICHOPHYTON
VIOLECEUM* VAR. *DECALVANS*, CASTELLANI,
1913, WITH REMARKS ON "ECZEMA MARGI-
NATUM" ("TINEA CRURIS SEU INGUINALIS")
IN JAPAN AND "LA LI TOU" OR "PARA-
SITIC FOLLICULITIS" ("TINEA DECALVANS"
PRO PARTE) OF SOUTHERN CHINA.

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I.

IN Japan and Manchuria the usual type of "eczema marginatum" (tinea cruris, tinea inguinalis) caused by *Epidermophyton cruris*, Castellani (*Ep. inguinalis*, Sabouraud) is much less frequently met with than the type caused by *Epidermophyton rubrum*, Castellani. *Epidermophyton rubrum* is a fungus very common in Japan and Manchuria, but it has often been confused by some Japanese dermatologists with *Trichophyton acuminatum* and even *Epidermophyton cruris*. It is the commonest organism found not only in eczema marginatum, but also in so-called dysidrotic eczema, interdigital dermatitis and onychomycosis. Dr. R. S. Hodges, University of Alabama, suggested that my three cultures of fungus brought from Japan were the same as his *Trichophyton* "A," viz. *Epidermophyton rubrum*. I have further studied my strains in the laboratory of Dr. Weidman, University of Pennsylvania, and I have come to the conclusion that my strains were certainly *Epidermophyton rubrum*, Castellani.

The cultures were isolated from cases of eczema marginatum, onychomycosis and dermatitis interdigitalis. The appearance of the cultures was identical with the descriptions given by Castellani, Bang and Hodges. Mycologically this fungus is characterised by the conidiophore hyphae bearing lateral pyriform spores, which are grouped in bunches, by the presence of multi-septated "fuseaux" (spindle-bodies), and at times rosary-like mycelial filaments composed

of short thick elements. Attempts to infect guinea-pigs with this fungus were not successful; but I could observe that the hair-follicles were attacked by the spores and mycelia, though abortively; neither mycelia nor spores, however, could be seen in the hair itself. A more detailed description of the fungus will be found in other publications of mine in Japanese and American medical journals.

II.

The traveller in Southern China will be surprised to see what a very large number of natives are affected with baldness. The Chinese use the term "la li tou" to indicate baldness in general, but principally the types of parasitic origin.

In the famous Chinese medical book *Bin-yuan-hou-lun* (605-609 A.D.) three varieties of alopecia are distinguished, namely:

The white alopecia.

The red alopecia.

The demon-like alopecia (perhaps alopecia areata).

In modern medical works very little can be found on the parasitic alopecias of the Tropics and the Far East, with the exception of Castellani and Chalmers' *Manual of Tropical Medicine* and Jeffrey and Maxwell's *Diseases of China*. Castellani, some years ago, in various publications, put on record several types of baldness met with in the

tropics, and described a peculiar type of parasitic origin, which he called "tinea decalvans." According to his description the condition is characterised by the scalp presenting at first one or several patches covered with an enormous number of heaped-up white scales (Figs. 1 and 2). The scales and the broken hairs contain an endo-ectothrix fungus which, when cultivated, shows many characteristics of *Trichophyton violaceum*. He considered it to be a variety of this species and called it *T. violaceum* var. *decalvans*. In a later stage of the condition the scales, hairs and fungus disappear and the patches remain permanently bald.

Jeffrey and Maxwell in their book on *Diseases of China* state that the Chinese term "la li tou," so often used in Shanghai, is often used

FIG. 1.—Tinea decalvans.

FIG. 2.—Tinea decalvans.

to cover two conditions. The first is favus, which is exceedingly common and destructive. The second, which is also chronic and destructive of the hair-follicles, is characterised by the presence of small silvery scales in large numbers, leaving, in the end, areas of permanent baldness, but not so diffuse and with very much less scarring. They believe that this second condition is also caused by fungus, but they have always failed to find it. I have found this so-called "la-li-tou" or "la-li" very prevalent in the provinces of Hopei, Kiangsi, Anhoe, Chakiang. It may be said in a general way that it is very common south of the Yantse River.

I have mycologically examined six cases of "la li tou"; I succeeded in growing fungi from three of them. From two I isolated *Achorion Schoenleini*. They were therefore cases of favus. From the third patient I isolated *Trichophyton violaceum* var. *decalvans*, Castellani. The original growth on glucose agar was very slow, with humid surface and of a violet colour. The subcultures of Sabouraud's agar were of a greyish colour with a violet spot. Mycologically it shows comparatively thick mycelia with short septation, sometimes with lateral conidia. Chlamidospores are also present, and rosary-like mycelial articles with double contour are seen (Fig. 3). Culturally, therefore, the fungus is practically identical with *Trichophyton violaceum*, Bodin, of temperate zones, but the lesions it gives rise to are

FIG. 3.—*Tinea decalvans* var. *decalvans*, Castellani.
Hanging drop culture.

so totally different that, at least biologically, it must be considered to be a different variety (var. *decalvans*, Castellani).

Conclusions.

(1) According to my researches, the commonest type of eczema marginatum (tinea cruris seu inguinalis) met with in Japan and Manchuria is caused by *Epidermophyton rubrum*, Castellani, 1909.

(2) Of three cases of Chinese "la li tou" in which cultivation was successful, *Achorion Schoenleini*, Lebert, was isolated by me in two and

Trichophyton violaceum var. *decalvans* in one. The term "la li tou," therefore, appears to cover in China at least two conditions—favus and Castellani's "tinea decalvans."

LITERATURE.

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CASE OF SCLERODERMIA (SCLERODACTYLY TYPE), WITH ADRENAL INSUFFICIENCY.

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THE case is that of a married woman, aged 24 years, who was admitted to the London Hospital on December 15th, 1921. She was shown at the Dermatological Section of the Royal Society of Medicine on January 19th, 1922. The patient is a Polish Jewess, and came to England when she was two years old. She states that

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