

CASE REPORT

THE INFESTATION OF *Demodex folliculorum* IN 12 YEARS OLD GIRLS FROM PALEMBANG SOUTH SUMATERA INDONESIA

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Abstract: This is the first case report of *Demodex folliculorum* infestation in Palembang, the patient was a 12 years old girl in Palembang city South Sumatera Province Indonesia. Her chief complain was erythematous and scaly lesion in face and hairfall. Noting the ectoparasite in her skin but without it in her hair, the disease was started around 6 months before coming to the hospital. This case concluded that the infestation linked *Demodex* mites with human disease.

INTRODUCTION

The *Demodex* mite, a type of follicle mite, can be found in normal hair follicles and sebaceous glands. The mites are wormlike in appearance and approximately 0.4 mm long. After copulation, the mites move downward into the hair follicle or sebaceous gland orifice, where they feed on sebum. *Demodex* mites are most often found on the nose, cheeks, and forehead but may also occur on the neck and chest. They have been implicated as an etiologic agent of rosacea, possibly through an immunologic response. *Demodex* mites have also been associated with pityriasis folliculorum, a rough, sandpaper-like eruption of the face with flushing and follicular plugging. However, no study has definitively linked *Demodex* mites with human disease.

CASE REPORT

The patient was a 12 year old girl, living in from Palembang the South Sumatera Province Capital. Since 6 months before coming to the Parasitology Department, her chief complaint was a prolonged dermatitis in nasolabial region. She was referred from the Department of Dermatovenereology after 3 weeks of non satisfactory treatment. We performed a Standardized Skin Surface Biopsy (SSSB) in her predilection lesion and pull off 3 pieces of hairs and stamped it onto object glass (Fig. 1). The result showed a mite in the follicle gland (Fig. 2). After the application of topical mites treatment (Permethrin), the complain solved.

DISCUSSION

We report that the infestation of *Demodex folliculorum* linked with human disease. We found that the infestation as the direct cause of the prolonged dermatitis. There is no co-exist condition that support the infestation.

Dhingra (2009) reported a case of Sebaceous adenoma co-existing with a high density of *Demodex* mite in the single yellow papule on the forehead of 55 year-old-male. Despite that *Demodex folliculorum* is a saprophytic mite of the human pilosebaceous unit with a predilection for facial skin and eyelashes, infestation with suppurative or granulomatous

inflammation may be seen with high mite density. To conclude, although Demodex mite is non-pathogenic in most individuals, it has a potential to cause a variety of skin disorders, the most common being rosacea. Whether it is pathogenic in causing this rare benign sebaceous neoplasm or a pure coincidental, it remains to be confirmed.

Hsu CK (2008) described a case of 15 non-antiacarid therapy dermatitis in the face and concluded that Demodicidosis should be considered in the differential diagnosis. The Potassium hydroxide examination, standardized skin surface biopsy, skin biopsy, or a combination of these is essential not to get into the under diagnosis of Demodex mite.

Forton F (2005) concluded that Demodicidoses are frequent among 10 dermatologist daily practice. His background research that Demodicidoses are thought to be rare, occurring mainly for patients with immunosuppression has turned out to be that Demodicidoses are frequent and occur among patients who are immunocompetent. Papulopustular rosacea with normal Demodex density are rare.

In conclusion, the infestation of *Demodex folliculorum* is linked with human disease. This confirms a causal of ineffective for under diagnosed face dermatitis non-antiacarid therapy.



Figure 1. Standardized Skin Surface Biopsy (SSSB)



Figure 2. *Demodex folliculorum* inside the follicle sac

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