

DEMODEX FOLLICULORUM IN MAN

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(With 1 Table)

INTRODUCTION

Demodex folliculorum, commonly known as the follicle mite is a parasite of man in all parts of the globe. It was discovered independently by Henle (1841) and Berger (1845). Simon (1842) described it as *Acarus folliculorum*. Owen (1843) reevaluated the genus as *Demodex*. According to Akbulatova (1963) there are two subspecies namely *Demodex folliculorum longus* and *Demodex folliculorum brevis*, synhospitalic on man. Desch and Nutting (1972) proposed the name *D. folliculorum* (Simon) and *D. brevis* (Akbulatova).

Causal relationship between these mites and acne, blepharitis, pityriasis rosacea (Nutting, 1965, Beerman and Stokes, 1934), alopecia (Miskjian, 1951), eye irritation (Ayres and Mihan, 1967), scaly disorders of skin (Sato, Higuchi and Saito, 1965, Lawrence, 1921 and Kaufmann-Wolf, 1925) was mentioned.

This paper presents two cases where allergic manifestations were complained of. The mite was detected locally from both the cases.

MATERIALS AND METHODS

A Muslim male, aged 51 years and a Hindu female aged 12 years attended the skin out patients Department of the Calcutta School of Tropical Medicine, in October 1975 and November 1976 respectively, with complaints of itching and burning sensation of both the sides of nose and ends of the upper lip. The patients were referred to the Department of Medical Mycology for scraping. On examination the scraping from the affected areas were found negative for any fungal infection but revealed the presence of certain mites. Both the cases were referred to the Department of Medical Entomology for further investigations. Scraping from each lesion of both the patients were mounted separately in Berlesès fluid and examined under a compound

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microscope for the presence of mites. Number of mites obtained from each scraping were counted and their measurements were taken, according to Desch and Nutting (1972).

OBSERVATIONS

Both the patients had been suffering for 2—3 months and presented similar symptoms. They complained of itching and burning sensation and flushing on the lesions. The lesions consisted of erythematous areas with papules and presented an acne like condition. There was no pus but the lesions were moist.

Examination of the scraping revealed variable number of *Demodex folliculorum*. The maximum number of mites recovered from one scraping was eleven. The mites are very minute and have an elongated transversely striated abdomen. Four pairs of five segmented legs are situated on the anterior part of the body. The length and width of the mites are recorded in Table 1.

TABLE 1.—Measurement of *Demodex folliculorum*

Mite	1	2	3	4	5	6	Average
Length (in μm)	255	285	300	240	300	270	274.5
Width (in μm)	52.5	52.5	45	52.5	52.5	60	61

DISCUSSION

Skin disorders due to presence of *D. folliculorum* have been reported by several authors (*loc cit*). Ayres and Mihan (1967) state that the aetiologic significance of *D. folliculorum* is not based on its mere presence, since the mite has been recognized to be a normal inhabitant of the sebaceous glands, but its aetiologic role is based on quantitative considerations.

According to Gmeiner (1908) in a wide range of skin diseases these mites are no more numerous in the lesions than elsewhere in the same host.

Two patients suffering from allergic manifestations revealed these mites locally and in one of them from one spot as many as eleven mites were recovered. The measurements of these mites tally with those of *D. folliculorum* (Simon) given by Desch and Nutting (1972). In this connection it is pertinent to mention that it is neither fully confirmed nor denied that there are two distinct demodicid species inhabiting the skin of man (Nutting, 1976). *Demodex brevis* (Akbulatova) was not detected from our patients.

SUMMARY

Demodex folliculorum was isolated from the face, in two cases, during the years 1975 and 1976. The number of mites isolated at each scraping ranged from one to eleven. A brief description of follicle mite is given.

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