Volume 38, N. 1-2 Agosto 1996

PARASSITOLOGIA

Rivista quadrimestrale dell'Università di Roma «La Sapienza»
Organo Ufficiale della Società Italiana di Parassitologia

European Federation of Parasitologists

EMOP VII

ABSTRACTS

VII EUROPEAN MULTICOLLOQUIUM OF PARASITOLOGY

2-6 September 1996, Parma, Italy

DIREZIONE E REDAZIONE: ISTITUTO DI PARASSITOLOGIA, UNIVERSITÀ DI ROMA «LA SAPIENZA»
RIVISTA PUBBLICATA PER L'UNIVERSITÀ DI ROMA «LA SAPIENZA» DA LOMBARDO EDITORE, ROMA

ISSN 0048-2951

Parassitologia

Eg 23

TREATMENT TESTS FOR HUMAN DEMODECOSIS

M. Principato
Istituto di Parassitologia Veterinaria, Università di Perugia, Italy.

Human demodecosis is a chronic parasitic disease involved in many skin pathologies in men and women, such as seborrhoeic alopecia (Principato,1995,1996), rosacea, perioral and eyelid dermatitis and, anyhow, it causes skin inaestheticisms and an anomalous sebaceous hypersecretion. During a five years'period, the effectiveness against *Demodex folliculorum* and *Demodex brevis* of the following substances, used pure or in combination with others, even if toxic, was tested on volunteers including the Author for at least a three months' period: 1) Alcohol,Ammonia, Xylene, Formaldehyde, Glycerol, Propylene glycol, Chloral hydrate, Benzoyl Peroxide, Sulphur, Methylene chloride, Acetic acid,Lactic acid, Glycolic acid,Tannic acid and several antibiotics, antifungal agents and dyes, such as Malachite green and Giemsa. 2) n.40 essential oils used pure or in alcoholic solutions. 3) Trichlorfon, Amitraz, Ivermectin and Lindane. None of the substances of the first and second groups determined the destruction and disappearance of mites. Among the substances of the third group, Amitraz and Trichlorfon resulted to be efficacious, especially if used alternately and with close treatments, every five days. By using Amitraz and Trichlorfon, *D.folliculorum* was definitively destroyed and removed from hair follicles, whereas *D. brevis* was not permanently eliminated in any case or by any pharmacological combinations, in spite of their effectiveness demonstrated by laboratory tests. When treatments were interrupted, *D.brevis* started to reproduce faster and to lay eggs more abundantly and the number of parasites was again nearly the same as before treatment. From our tests the sebaceous material altered by the presence of these mites resulted to act as a protective barrier preventing the antiparasitic agents from penetrating. Furthermore, by some other laboratory tests effected by exposing parasites, either covered with sebum or not, to UV-rays or to any other of the above mentioned substances (except by using Xylene and Methylene chloride), we got the demonstration that human sebum, altered by the presence of *D. brevis*, is impenetrable and it does not allow the acaricide agent to act efficaciously. On the contrary, using Methylene chloride or substances as toxic as Xylene, on the skin, to take the grease off it, we got no success, either to kill mites directly or to facilitate the penetration of other acaricide agents. The recovery from human demodecosis is, therefore, in our opinion, strictly related to the capacity of acaricide agents to penetrate the skin crossing the sebaceous barrier.