



UNIVERSITÀ DEGLI STUDI
DI BOLOGNA

SOCIETÀ ITALIANA
DI PARASSITOLOGIA

**ATTI XVIII CONGRESSO NAZIONALE
SOCIETÀ ITALIANA DI PARASSITOLOGIA**

Ozzano Emilia, 22-24 giugno 1994

COMITATO ORGANIZZATORE

c/o Istituto di Malattie Infettive, Profilassi e Polizia Veterinaria
G. Battelli, G. Canestri Trotti, M. L. Fioravanti, R. Galuppi, M. Martini,
M. Pietrobelli, G. Poglayen, R. Restani (presidente), R. Roda,
S. Pampiglione, M. P. Tampieri (segretario)

COMITATO SCIENTIFICO

G. Battelli, G. Canestri Trotti, S. Pampiglione (presidente),
G. Poglayen, M. Trentini

OUTBREAK OF VAGINOMYIASIS BY *WOHLFARTIA MAGNIFICA* IN GRAZING CATTLE IN CENTRAL ITALY

M. AMBROSI(1), M. PRINCIPATO(2)

(1) Cattedra di Malattie Parassitarie Animali, Università di Perugia; (2) Istituto di Parassitologia, Università di Perugia

Myases caused by *Wohlfartia magnifica* have been described in the last ten years in various mediterranean and est-european countries, such is in Spain (Martinez R.I. et Alii, *Isr. Jour. Vet. Med.*, 1987, 43[1], 34; Ruiz Martínez I. et Alii, *Isr. Jour. Vet. Med.*, 1991, 46[2], 64), Isreal (Hadani A. et Alii, *Rev. Elev. Méd. Vét. Pays Trop.*, 1989, 42[1], 33), Bulgaria (Kostov R. et Alii, *Veterinarna Sbirka*, 1985, 83[3], 34; Veleva A., *Veterinarna Sbirka*, 1987, 85[6], 20), Ukraine (Mashkei I.A., *Veterinarya Kiev*, 1989, 64, 52), Russia (Isimbekov Z.H., Zhumabekov K.H., *Veterinarjia Moskow*, 1983[6], 19), Roumania (Lungu T. et Alii, *Lucr. Stiint. Inst. Agr. [Med. Vet.]*, 1985, 28, 69; Preutu M., *Rev. Crest. Anim.*, 1986, 34[4], 58; Lehrer Z. et Alii, *Ann. Méd. Vét.*, 1988, 132, 475). In Roumania a real "explosion" of population of *Wohlfartia magnifica* has been recently reported (Lehrer A.Z., Verstraeten C., *Bull. Rech. Agr. Gembloux*, 1991, 26, 563), due perhaps to the introduction of exotic sheep breedings from Australia and New Zealand (or other not autochton breedings) to the steppe-like conditions.

The myasis caused by this species of Diptera is described as a frequent or massive one in cattle, pigs, buffaloes, camels, but mainly in sheep. The infestation occurs during the summer from June to September (but also in May and October), favoured by dry and hot climatic conditions and extensives pastures (even if a correlation between the incidence rate and environmental factors or pasture type could not be determined by Martinez et Alii, 1987). Predilection infestation sites are the vulva and the prepuce: in the above said countries, infestation affects from 2-4% to 20-30% of sheep.

Our survey concerns two different outbreaks occurred in seasonal cattle breedings in Central Italy hills, each of about 200 cows plus calves. From June on (namely, a month after the beginning of the pasture season) many females, above all the young ones at their first mating period, began to show rather yellowish vaginal secretion, pains in urining, refusal of natural coitus: such a symptomatology was recorded as a whole in 31 heads of cattle in a farm and in 22 in the other. At the clinic observations all females showed congestion, oedema, erosions, muco-purulent exudate in their vulval mucosa and in the distal part of their vagina: many larvae of Diptera moving rather lively were present.

The inflammatory process was treated with a good result by removing the larvae manually and by using antibiotic and anti-inflammatory agents locally. After a few weeks cows accepted to mate and were regularly impregnated, except three of them shoving a re-infestation. The larvae removed were at the I and II stages of their life-cycle: we made a culture of those more lively ones putting them in jars containing pieces of wet meat (to favour the development to the III stage) and some sterile mould (to get pupation and hatch of adults) at 27°C. and 70-80% RH. The adults formed from the larvae in culture were all *Wohlfartia magnifica*: we can say that it was, in both cases, a pathology caused by occasional myiasis evidently complicated by pyogenous germs of secondary outbreak, seriously damaging reproduction.

Our observation lead to two conclusions: 1) a massive infestation by *W. magnifica* can occur in ruminants, mainly cattle, also in pasture conditions with a temperate climate such as on the Central Italy hills and not only in plains and steppes having a dry and hot climate; 2) occasional myases, caused by *W. magnifica* and by other diptera, can become a real breeding pathology causing loss in production. It is important to note that a local treatment with insecticides (diazinon and pyretrins: Hadani et Alii, 1989) is useful for therapeutic aims, but application of pyretroids or phosphorganic or chlororganic compounds as solution or emulsion or ointment fails to prevent infestation (Lungu et Alii, 1985). Biological control of genital myiasis of sheep (caused not only by *W. magnifica* but also by *Lucilia sericata*, *Calliphora vomitoria* and *Musca domestica*) using the Hyperparasite *Nasonia vitripennis* was tested in Roumania (Preutu, M., *Rev. Crist. Animal.*, 1986, 36[4], 58.