PRELIMINARY OBSERVATIONS ON THE PRESENCE OF VISNA-MAEDI IN ITALY

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ABSTRACT

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The presence of visna-maedi in Italy is reported for the first time. History,
clinical findings and gross and microscopic lesions typical of the disease were
observed in two sheep flocks in Central Italy. Affected animals were afebrile,
lacked energy, lost condition and had progressively worsening dyspnoea which
ended fatally. A few showed locomotor disturbances but remained alert. Anaemia
and leukopenia were present. The lungs were affected with fleshy consolidation.
Histologically, the pulmonary lesions included bronchiolar epithelial hyperplasia,
peribronchiolar lymphoid cuffing, alveolar epithelialisation and very marked
interstitial changes.

In agar gel diffusion tests on sera from 106 animals from the two flocks,
44 were positive. Furthermore, when the same test was conducted as a preliminary
screening procedure on 682 animals randomly chosen from 94 flocks in five Regions,
93 positive animals were revealed in 39 flocks, involving all of the Regions.
The infection is likely to be widespread in Italy and to constitute a problem in
at least some flocks or areas.

INTRODUCTION

In Italy, there are about nine million sheep and a million goats, mainly
managed extensively on open ranges in the least populated and developed areas of
Sardinia, Sicily and Apennines. Brucellosis, infectious mastitis of varied
aetiology, clostridial enterotoxaemias, foot rot and parasitisms, such as
echinococcosis-hydatidosis, fascioliasis and gastrointestinal and respiratory
nematodiasis, have been traditionally recognised as the prevalent diseases.

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Recent changes in husbandry, with the development of intensive rearing methods, and increased national and international trade have drawn increased attention to other diseases.

One such disease is visna-maedi which, although suspected, had never been confirmed until very recently. The purpose of this paper is to report preliminary observations on the first recognised cases of this disease in Italy.

MATERIALS AND METHODS

Sheep

The two flocks (A and B) were from different Regions and, as far as we know, had no relationship with each other. Information was collected both by interviewing the farmers and by direct observations. Flock A (near Perugia, Umbria) consisted of about 300 sheep, mainly of the Sardinian breed with some of the Bergamasca breed; there were also a few goats. The flock was range-reared and had been formed 20 years ago when the owner immigrated from Sardinia with a group of animals. Flock B (near Teramo, Abruzzo) consisted of about 600 sheep of the Comisana breed, range-reared in the mountains of Abruzzo during summer and wintered in Latium.

Clinical pathology

Red and white blood cell counts were carried out fortnightly on four sheep from flock A kept under observation at the Istituto Zooprofilattico of Teramo. Examinations for endoparasites were carried out on random samples of faeces collected in the field from the two flocks and from each of the four sheep under observation.

Pathology

Three of the four animals under observation were euthanised and examined for gross lesions, together with two sheep from flock A and one from flock B. The lungs and brains of the six animals were also examined for histopathological lesions (HE staining).

Bacteriology

The lungs of the above six sheep were also examined for the presence of bacteria and mycoplasmas.