The occurrence of Thelazia gulosa and T. skrjabini in cattle in Italy, together with an update of the prevalence of Thelazia spp. in the southern Italy, is reported. On 764 slaughtered native cattle, fifty-five (7.2 %) bovines were infected by Thelazia spp: T. rhodesi was found in 44 (80 %) animals, T. gulosa was found in 19 (34.5 %) cattle and only one (1.8 %) cattle harboured T. skrjabini. This is the first report of T. gulosa and T. skrjabini in Southern Europe.

**KEY WORDS:** Thelazia gulosa, T. skrjabini, T. rhodesi, cattle, Italy.

**Summary:**

The occurrence of Thelazia gulosa and T. skrjabini in cattle in Italy, together with an update of the prevalence of Thelazia spp. in the southern Italy, is reported. On 764 slaughtered native cattle, fifty-five (7.2 %) bovines were infected by Thelazia spp: T. rhodesi was found in 44 (80 %) animals, T. gulosa was found in 19 (34.5 %) cattle and only one (1.8 %) cattle harboured T. skrjabini. This is the first report of T. gulosa and T. skrjabini in Southern Europe.

**Key words:** Thelazia gulosa, T. skrjabini, T. rhodesi, cattle, Italy.

Thelazia gulosa, T. rhodesi, T. skrjabini

**Relative to Europe, very few contribution are available.** Reports of Thelazia gulosa and T. skrjabini in cattle have been documented only in Great Britain by Fit-simmons (1963), Oakley (1969) and later by Arbuckle & Khalil (1978).

In Italy, since the 1950's bovine thelaziosis was thought to be represented by only one species: Thelazia rhodesi and several reports indicated the presence and prevalence of this species in Calabria (D'Esposito, 1949), Sicily and Calabria (Panebianco, 1955; Niutta et al., 1992), Sardinia (Corticelli & Lai, 1966) and Apulia (Sobrero & Schiavone, 1977; Puccini et al., 1986), ranging from 19.2 to 69 %.

After a fortuitous report at the slaughterhouse in a single cattle of T. gulosa and T. skrjabini, an investigation was undertaken to confirm the occurrence of these species and to update the overall prevalence of thelaziosis in native cattle in Apulia region (South-eastern Italy).

**MATERIALS AND METHODS**

Two abattoirs, Conversano and Noicattaro (Province of Bari) were visited once a week from June 1995 to December 1997. 764 local slaughtered cattle, eight months to seven years of age were examined. Both eyes and associated tissue including the lachrymal glands, upper and lower eyelids and skin surroundings the orbits were removed and examined for Thelazia worms. Both eyes belong to each animals were then placed in a bottle containing physiological solution and returned to the University for examina-
tion. The lateral canthus was cut and after eversion of the eye the exposed surface of the conjunctiva was examined; manual pressure was applied to the base of the ducts of the lachrymal gland and the nictitating membrane to allow for the emission of worms. All nematodes recovered from individual eye were placed in physiological saline and the number, species and sex were recorded. Some specimens were placed in Amman solution for optic microscopic documentation. The identification was made by the morphological features described by Skrjabin et al. (1967).

RESULTS

Fifty-five (7.2 %) bovines were infected by Thelazia spp: T. rhodesi was found in 44 (80 %) animals, T. gulosa was found in 19 (34.5 %) cattle and only one (1.8 %) cattle harboured T. skrjabini. A total of 235 Thelazia specimens were collected: T. rhodesi was the most represented species (79 females, 26 males and 27 larvae), followed by T. gulosa (56 females, 19 males and 23 larvae) and T. skrjabini (one female and one male). The burden ranged from one to 17 worms with a mean count of 4.0 ± 3.8 per head. T. gulosa was mainly found in the excretory ducts of the lachrymal gland but also in the duct of Harderian gland and free in the conjunctiva. The two specimens of T. skrjabini were found free in the conjunctiva, while T. rhodesi was found mainly free in the conjunctiva and in two cases in the duct of the Harderian gland.

DISCUSSION

This survey indicates that besides T. rhodesi (Puccini et al., 1986; Niutta et al., 1992) other two species, T. gulosa and T. skrjabini, are very common in cattle in Southern Italy. These species have never been documented in Italy and in all Southern Europe. In France has been documented T. rhodesi in cattle (Perrier, 1993) and in Germany T. lacrymalis in horse (Beelitz et al., 1997). Also, the presence of Musca autumnalis and M. larvipara the vector of these nematodes, is well documented in many Southern European countries (Giangaspero, 1997). This first report on the presence of T. gulosa and T. skrjabini in native cattle in Southern Italy suggests that these species have a more extensive geographical distribution than previously thought. We may hypothesized that this lack of information on the presence of T. gulosa and T. skrjabini in other European countries may be due to their sheltered location (Kennedy & MacKinnon, 1994) which probably make its detection difficult.

REFERENCES


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