

Intestinal myiasis due to *Eristalis tenax*: report of a new case in Spain

Antonio Clavel¹, Miguel Toledo², Pilar Goñi¹, Carmen Aspiroz²

¹Area of Parasitology, Department of Microbiology, Preventive Medicine and Public Health, Faculty of Medicine, University of Zaragoza, Spain;

²Laboratory of Microbiology, Royo Villanova Hospital, Zaragoza, Spain

SUMMARY

We describe a new case of accidental intestinal myiasis by *Eristalis tenax* in Spain. Only about 20 cases have been reported worldwide, two of them occurring in Spain. A 51-year-old patient with nonspecific abdominal pain and occasional diarrhoea expelled larvae in her stool. Macroscopic analysis of these larvae revealed morphology compatible with that of *Eristalis tenax*. The larva analysis showed its autofluorescence as parasitological feature described for the first time.

KEY WORDS: *Eristalis tenax*, Intestinal myiasis, Rat-tailed larva

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A 51-year-old Spanish woman, with non-relevant medical history, was referred to Hospital Royo Villanova in Zaragoza, Spain, in November 2009 due of to the presence of larvae in her feces. The symptoms she presented were non-specific abdominal pain and occasional diarrhoea, and she reported the finding of five similar forms in May 2009. Microbiological and parasitological study of feces showed no evidence of other microorganisms that could justify these symptoms. A combination of a laxative to ensure the complete elimination of larvae, and cotrimoxazole (800/160 mg 12 h, 5 days), as a preventive measure, was prescribed as the treatment of choice.

Macroscopic observation of the supplied larva showed a body of about 1 cm and a tail-like breathing tube with a characteristic terminal telescopic section of 2 cm, which allowed its identification and led to the diagnosis of accidental

intestinal myiasis due to *Eristalis tenax* (Figure 1). *E. tenax* is the most common species of *Tubifera tenax* genera (Diptera: Syrphidae), and the posterior respiratory structure of their larvae gives them the name "rat-tailed larvae" (Silva-Campos, 1955). This appendix allows the aquatic larvae to breathe air while inhabiting highly polluted water. It consists of three segments where the apical segment bearing a pair of spir-

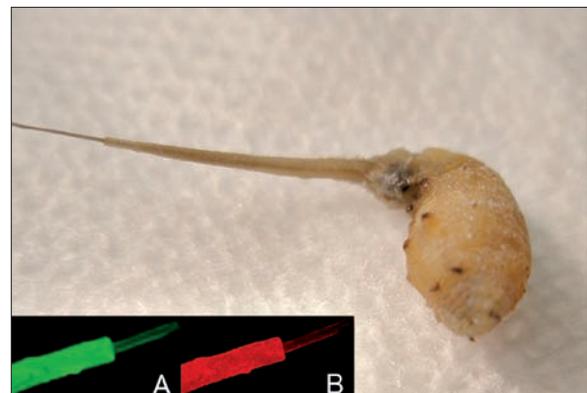


FIGURE 1 - Rat-tailed larvae and the structure of its retractile respiratory observed with a Nikon Eclipse 80i microscope: A) FITC (Excitation: 482/35, Emission: 536/40) and B) G-2A (Excitation: 510-566, Emission: 590) filters.

Corresponding author

Antonio Clavel Parrilla

Area of Parasitology, Department of Microbiology, Preventive Medicine and Public Health, Faculty of Medicine, University of Zaragoza.

C/ Domingo Miral s/n. - 50009 Zaragoza, Spain

e-mail: aclavel@unizar.es

acles, and the subapical segment can be retracted into the basal segment. We have seen that the joint between these segments of the telescopic structure can be observed with greater definition using autofluorescence (Figure 1).

The water supplies and habits of patients are factors that should be considered in the evaluation of myiasis. The patient lives in a suburban neighbourhood, and when asked about her habits, she mentioned that she cleans a fountain in her home twice a year, which might coincide with the previous finding of larvae and suggest successive re-infections.

The fountain usually contains stagnant water that is pumped through a small pipe performing a first suction with the mouth. Thus, she could have accidentally ingested contaminated water containing fly eggs or larvae. In subsequent visits, she did not refer the presence of symptoms or new larvae in the stool.

Only about 20 cases of gastrointestinal myiasis due to *Eristalis tenax* have been described since 1950, seven of these occurring in Europe, two of them being in Spain (Aguilera *et al.*, 1999; Ferrer

Bradley *et al.*, 2010). Although this myiasis does not cause significant disease and despite its very low occurrence rate, it is important to report the cases because patients are concerned when they discover larvae in their stools. Moreover, health professionals should be aware that this may happen regardless of socioeconomic conditions.

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