**Dicrocoelium dendriticum: a true infection?**

**Dicrocoelium dendriticum: una vera infezione?**

Barbara Magi¹, Elena Frati², Laura Bernini¹, Anna Sansoni¹, Giacomo Zanelli¹

¹Infectious Diseases Clinic, Department of Molecular Biology, Siena University; ²Clinic of Rheumatology, Department of Clinical Medicine and Immunology, University of Siena, Italy

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**INTRODUCTION**

*Dicrocoelium dendriticum* is the most widespread liver fluke in cattle and sheep in Italy [1]. Adult forms live in the gall bladder and bile ducts of their final hosts (ruminants). Eggs are passed in faeces and ingested by land snails which excrete cercaria in mucous balls, which are eaten by ants. Infestation usually occurs by ingestion of ants that carry metacercariae by animals and occasionally humans [2]. Here we describe a rare case of asymptomatic human dicrocoeliasis.

**CASE REPORT**

A 55-year-old Italian woman was admitted to the Rheumatology unit (Siena University Hospital, Italy) in June 2007 with a chronic history of cervical and lumbar pain and was diagnosed with osteoarthritis. Blood tests showed mild eosinophilia (9.7%) and slightly elevated bilirubin (1.5 mg/dl). Other laboratory results were within the normal range. Abdominal ultrasound was negative for liver and biliary abnormalities. Total IgE count was normal and there was no history of allergy. Microscopical examinations of three stool specimens after concentration revealed *Dicrocoelium dendriticum* eggs (Figures 1, 2). She denied liver consumption, travel or animal contact within the past weeks. She did not complain of abdominal discomfort except for a long history of constipation. She was treated with albendazole (400 mg twice a day for 7 days) and 4 weeks later parasitological examination was negative and blood parameters had returned to normal.

**DISCUSSION**

Despite the widespread nature of the liver fluke *Dicrocoelium dendriticum*, dicrocoeliasis is rarely...
encountered in clinical practice [2]. Infections occur by ingestion of the second intermediate host (ants) contaminating raw fruit and vegetables. Metacercariae migrate into the bile system causing chronic irritation of the liver and bile ducts [2]. Symptoms associated with human infection include chronic constipation or diarrhoea, hepatomegaly, bile duct obstruction, hypereosinophilia and possibly urticaria [2-5]. Asymptomatic infection has been documented in animals. Detection of parasite eggs in human stools is not always associated with real infection, but may indicate “spurious infection” or pseudoparasitism due to ingestion of raw or undercooked infected liver [2, 4].

Re-examination of stools after three days of liver-free diet is generally conclusive [6]. In the present case, there was no history of liver consumption. Although the patient was symptom-free, eosinophilia and elevated bilirubin (either reported in dicrocoeliasis) that returned to normal after antiparasitic therapy, suggest true infection with initial involvement of the bile ducts. Imidazole therapy was effective in eradicating the parasite as reported in a prior study [2]. In our opinion, the present was a rare case of asymptomatic dicrocoeliasis and to our knowledge there has been no prior report from Italy.

**Key words:** dicrocoeliasis, human infection, liver fluke.

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**SUMMARY**

*Dicrocoelium dendriticum* is a liver parasite of ruminants. Humans are occasionally infected by ingestion of intermediate hosts. We report a rare case of dicrocoeliasis in a 55-year-old woman who presented with eosinophilia and elevated bilirubin. Therapy with albendazole eradicated the parasite and normalized blood parameters.

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**RIASSUNTO**

*Dicrocoelium dendriticum* è un parassita epatico dei ruminanti. L’uomo si infetta occasionalmente attraverso l’ingestione di ospiti intermedi. Descriviamo un caso raro di dicroceliasi in una donna di 55 anni che ha presentato eosinofilia ed aumento della bilirubina. Il trattamento con albendazolo ha eradicato il parassita con normalizzazione dei parametri laboratoristici.

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**REFERENCES**