



# Strongyloides Stercoralis as a Risk Factor for Arthritis in Humans



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## Opinion

Arthritis, an inflammation of one or more joints, characterized by swelling, warmth, redness of the overlying skin, pain and restriction of motion, can have different origins, between them the parasitic origin. Effectively, the parasitic nematode worm *Strongyloides stercoralis*, that occurs almost world-wide, excluding only the far north and south, is a potential causal agent of arthritis in its human hosts [1]. With the present edital containing more recent information we wish to alert the reader to strongyloidiasis by *S. stercoralis* as a potential risk factor for arthritis in its hosts. *S. stercoralis* was described in 1876 but only in the 1930s, the full life cycle, pathology and clinical features in human were fully disclosed. It was then possible to know that the rhabditiform larvae are excreted in the stool of infected individuals and in the soil develop into infected third stage filariform which can infected a new host by penetrating the skin. After, they migrate to the lungs, here they cause tissue destruction and bleeding, and after migrating to the trachea branchial tree and subsequently will be ingested to the gastrointestinal tract, where they transform into the adult worms, living in the duodenojejunal mucosa and produce eggs that transform into rhabditiform larvae which are passed with feces and mature into filariform larvae. *S. stercoralis* can reproduce within a human host (endogenous autoinfection) which may result in long-lasting infections [2].

For demonstrate that *S. stercoralis* as a risk factor for arthritis in humans has deserved the attention of investigators, we selected one case published in 1984, and several cases published in the 2000s. In 1984, the authors [3] have reported the case of a 40-year-old man with vasculitis and symmetrical polyarthritis in addition to 'boggy' swelling of his ankles. Histológicas examination of synovium of the ankle revealed parasitic invasion by *S. stercoralis* larvae. In 2003, the authors [4] presented the case of a 35-year-old man with recent-onset symmetrical polyarthritis that "after repeated examination was the presence of larvae of *S. stercoralis* detected in concentrated fresh stool". In 2005, the

authors [5] described a 69-year-old woman without evidence of immunosuppression that had *S. stercoralis* infection presenting with severe malabsorption and a severe arthritis of the ankle.

In 2006, the authors [6] present the case of a 44-year-old man from Sierra Leone living in Germany For 18 years and that had presented arthritis and the microscopy of fresh stool had revealed larvae of *S. stercoralis*. In 2010, the authors [7] present bathe axes of a 68-year-old woman presenting *S. Stercoralis* hyper infection associated with rheumatoid arthritis and bronchial asthma. In 2017, the authors [8] reported the presence of reactive arthritis due to *S. Stercoralis* infection in a 11-year-old girl.

In 2018:

- a) The authors [9] reported the case of a 65-year-old man with rheumatoid arthritis and duodenal involvement of *S. Stercoralis*.
- b) The authors [10] reported the case of a 74-year-old woman with a history of rheumatoid arthritis and stool analysis revealing microscopic evidence of *S. Stercoralis* larvae. In the article [11] we found a good systematic review on the laboratory diagnosis and follow up of diagnostic of strongyloidiasis that we consider useful for reader with interest in this subject.

## Conclusion

Strongyloidiasis should be considered in the differential diagnosis of severe malabsorption and acute arthritis [6] and *S. stercoralis* is of high importance in global helminths control and should therefore not be neglected [2].

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## Novel Techniques in Arthritis & Bone Research

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