

# ALTERNATIVE TREATMENT TO ORAL IVERMECTIN IN *STRONGYLOIDES STERCORALIS* HYPERINFECTION IN THE SETTING OF SMALL BOWEL OBSTRUCTION AND PARALYTIC ILEUS.

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## Background and importance

Gastrointestinal complications, including small bowel obstruction and paralytic ileus, are associated with *Strongyloides stercoralis* hyperinfection syndrome, decreasing oral bioavailability. Ivermectin is the first-line agent for the treatment of strongyloidiasis as well as *S. stercoralis* hyperinfection. In Europe, ivermectin is available in oral and parenteral formulations; however, the European Medicines Agency (EMA) has approved only the oral formulation for human use.

## Aim and objectives

The aim of the study is to describe alternatives to oral ivermectin when enteral absorption is compromised, regarding a recent case in our hospital.

## Materials and methods

- ✓ A bibliographic research was made using databases such as MEDLINE (PUBMED) and Micromedex.
- ✓ A specific search for official regulatory documents concerning human and veterinary medical products, from the websites of the EMA was carried out.
- ✓ Therapeutic options found were assessed by the multidisciplinary infectious diseases team, including a clinical pharmacist.

## Results

Compromised enteral absorption

Need to search for alternative routes of administration

Dose of 200 µg/kg/day



- ❖ Subcutaneous ivermectin for veterinary use
- ❖ Compounding pharmacists prepared enemas of ivermectin

Oral ivermectin formulations no optimal

Days 1-14

- A progressive decrease in the parasite load was observed.
- Discontinuation of enema administration due to the appearance of a recto vaginal fistula.

Day 14

- First negative stool culture.

Day 25

- First negative sputum.

Day 33

- Second negative sputum.
- Ending of parenteral ivermectin treatment.

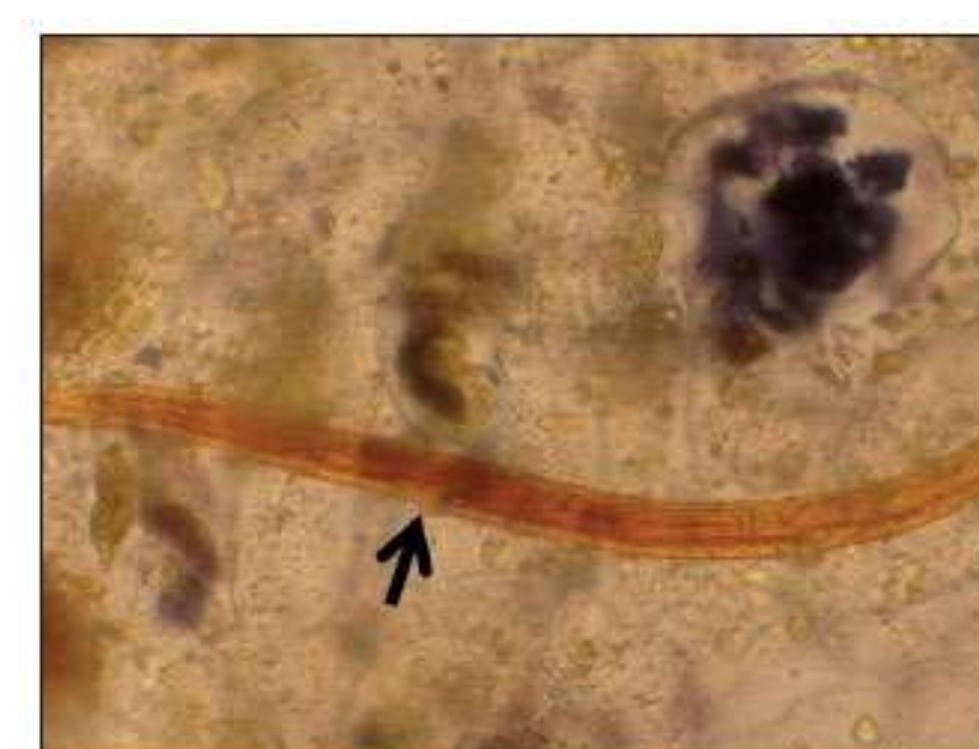
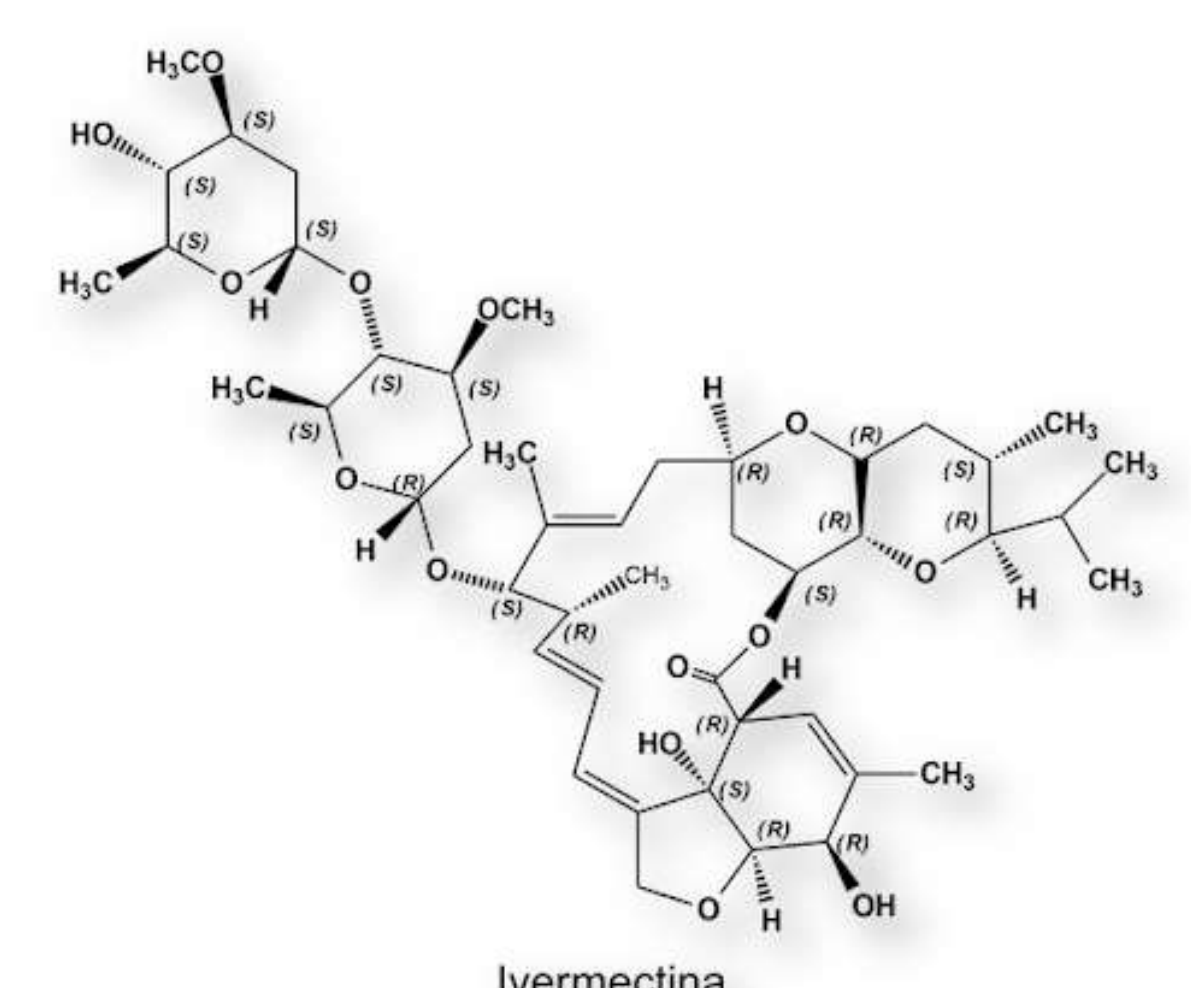


Figura 1. Examen parasitológico directo con técnica de Baermann con larva de *S. stercoralis*.



12 mg/30 ml administered every 12 hours



Ivermectina

## Conclusions and relevance

- ❖ The lack of treatment alternatives to oral ivermectin implies the use *off-label* of other therapies.
- ❖ Subcutaneous ivermectin available for veterinary use and rectal ivermectin compounding from marketed tablets could be valid options when the oral bioavailability is decreased.
- ❖ Further research is needed in order to fill the gap of ivermectin administration in patients with enteral absorption compromised.