

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

M Escario-Gómez, M García-Trevijano, F Moreno, F Ros, E Villamañán, C Bilbao, M Ayllón, J Álvarez, A Herrero.

¹La Paz University Hospital, Pharmacy, Madrid, Spain

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

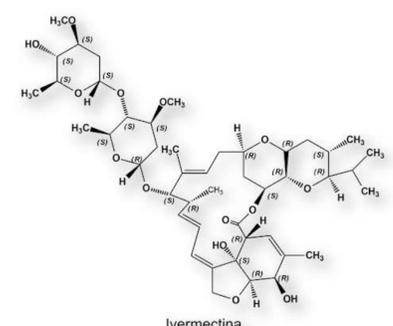
- Second negative sputum.
- Ending of parenteral ivermectin treatment.



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.