IVERMECTIN ENEMA ELABORATION FOR THE TREATMENT OF STRONGYLOIDES HYPERINFECTION
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Background
- Strongyloides stercoralis can produce a life-threatening illness in immunosuppressed hosts. Treatment options are limited to oral formulations and there is little data on alternative therapies.

Purpose
- To describe the preparation of ivermectin enema and evaluate its effectiveness in the treatment of Strongyloides hyperinfection.

Material and methods
- Bibliographic search in Medline® (key words: ivermectin, rectal, Strongyloides) to know the main characteristics of ivermectin enema: concentration, composition, elaboration method, packaging material, stability and storage conditions.
- Review of the electronic medical records and follow-up of the patient during hospitalization.

Results
- Man
  - 57 years old
  - Brazilian origin
- Symptoms
  - Nausea, vomiting and dizziness
- Imaging tests
  - Show lesions in his brain
  - He is operated by neurosurgery
- After a month, the patient has haemodynamic instability
  - He is transferred to intensive care where he is diagnosed with Strongyloides hyperinfection by wet prep of bronchial suction on August 18th, 2014
- Treatment
  - It is initiated with ivermectin 200 µg/kg/24h by nasogastric tube on August 18th, 2014
  - Strongyloides is isolated in feces culture on August 19th, 2014
  - ivermectin enema 200 µg/kg/24h is added to the treatment on August 22nd, 2014
  - August 25th, Strongyloides larvae observed in bronchial suction
  - August 27th, Strongyloides larvae observed in feces culture
  - NO movement capacity
- September 3rd and 5th bronchial suction and feces culture were done
- Results were NEGATIVE
- Treatment with nasogastric tube and rectal ivermectin finished
- The elaboration of ivermectin enema was required to the pharmacy service because it doesn’t exist a commercial presentation appropriate to rectal administration.

Elaboration process
- Crush ivermectin 12 mg tablets in a mortar until fine powder
- Wet the powder with a small quantity of carboxymethylcellulose 1.5% until homogeneous mixture
- Add small portions of carboxymethylcellulose until complete 30 ml
- Stability: The enema has to be used immediately

Conclusions
- A protocol for the elaboration of ivermectin enema was established. The treatment with rectal ivermectin added to ivermectin oral administration is an effective therapeutic option for the treatment of Strongyloides hyperinfection.