Introduction

*Ascaris lumbricoides*, *Trichuris trichiura* and Hookworm species belong to the family of intestinal nematodes are cylindrical, unsegmented helminths which are pointed at both ends. Their size ranges from a few millimetres to over a meter long. The sexes are separate, the female usually being larger than the male. They are composed of a tough, smooth outer cuticle and a cavity containing a fully functional digestive tract with a mouth, intestine and anus. Nematode infection are found in both temperate and Tropical climates. World Health Organisation estimates that 1.5 billion people carry intestinal nematode infections.

Life cycle

The life cycle of nematodes involves 5 stages, 4 larval stages and the adult.
Clinical Disease
The patient may have symptoms of pneumonitis with cough and low grade fever during the migration of the larvae through the liver and lungs. This can be accompanied by wheezing and cough with eosinophilia. The adult worms actively migrate in the intestine resulting in intestinal blockage, vomiting and abdominal pain but infections may also be asymptomatic. A heavy worm burden in children may lead to severe nutritional impairment.

Laboratory diagnosis
The adults of *Ascaris lumbricoides* may be found in faeces or vomit and it is important to distinguish them from earthworms which are segmented and are often collected as a contaminant from toilets. It is the largest of the intestinal nematodes found in man. The male measures 15cm with a diameter of 3-4mm and has a curled tail with protruding spicules. The female is 25cm long with a diameter of 5mm with a straight pointed posterior end. The mouth has one dorsal and 2 ventral lips.

The microscopic examination of stool deposits after concentration reveals the characteristic bile stained ova. The unfertilised ova are brick shaped with an irregular bumpy surface. They measure 85 - 95µm by 43 - 47µm. The fertilised ova are oval shaped and thick walled with an irregular bumpy surface and measure 45 - 75µm by 35 - 50µm. Eggs may be difficult to identify if an excess of iodine is added to the wet preparation as they retain the stain thus resembling debris. Ova may also become decorticated.