

## Other Flagellates

### ***Enteromonas hominis***

#### **Introduction**

*Enteromonas hominis* is a small flagellate and is rarely encountered. It is found in both warm and temperate climates and is considered to be non-pathogenic.

#### **Morphology of the cyst**

The cyst is oval and is 6-8µm in length. It has up to 4 nuclei with a bipolar tendency.

#### **Morphology of the trophozoite**

The trophozoite is oval and 4-10µm in length. It has a jerky rotation. It has 4 flagella, 3 anterior flagella and one adheres to the body ending in a tail. It has one nucleus with a large karyosome which is evident in a stained preparation.

#### **Laboratory Diagnosis**

The cysts are seen in a formol-ether concentrate. The cysts have no distinguishing characteristics and thus can be confused with *E. nana* or even yeasts. The characteristic trophozoites can be seen in a permanently stained faecal smear.

### ***Retortamonas intestinalis***

#### **Introduction**

*Retortamonas intestinalis* like *Enteromonas hominis* is a small flagellate and is rarely encountered. It is found in both warm and temperate climates and is considered to be non-pathogenic.

#### **Morphology of the cyst**

The cyst is small and pear shaped. It is 4-7µm with 1 large nucleus frequently near the centre. The fibril arrangement from the nucleus is suggestive of a bird's beak. This is characteristic.

#### **Morphology of the trophozoite**

The trophozoite is small, measuring between 4 and 9µm. Its movement is jerky and rotational and has 2 anterior flagella and a prominent cytosome which can be seen in an unstained preparation. It has a relatively large nucleus at the anterior end with a small compact karyosome.

## **Laboratory Diagnosis**

The small pear shaped cysts are uncharacteristic in an unstained formol-ether preparation.

However, the addition of iodine reveals the characteristic bird beak fibrillar arrangement in the pear shaped cyst.

In a fresh stool preparation, the 2 anterior flagella and cytosome can be seen in the trophozoite. In a permanently stained preparation, the large nucleus with small central karyosome is diagnostic.