




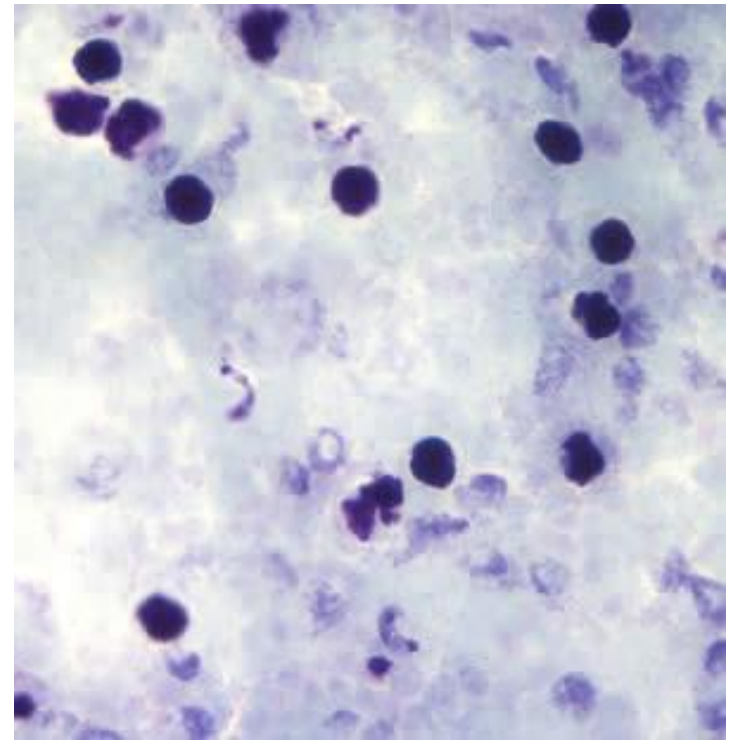
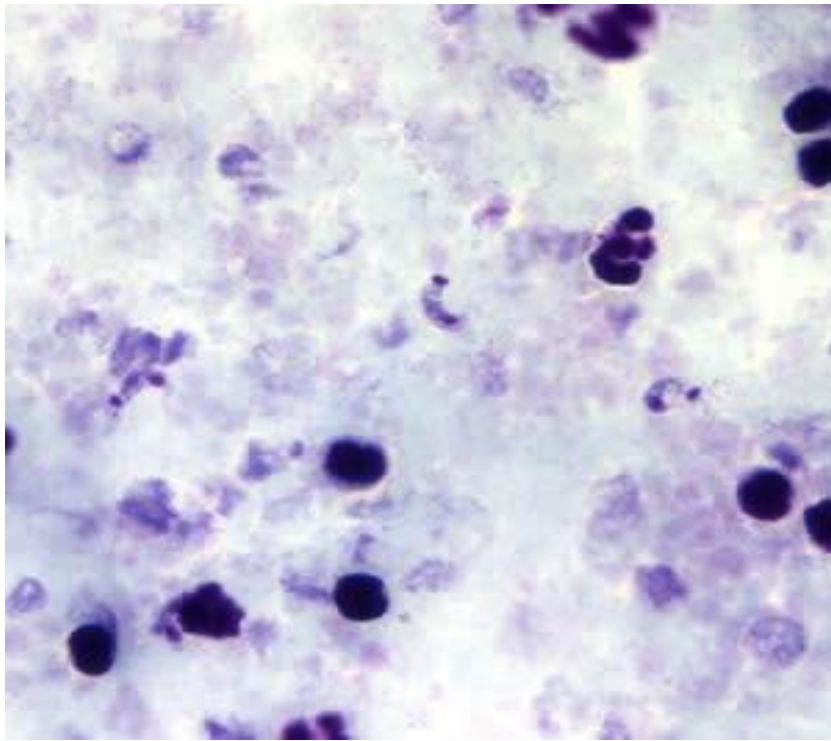
# Genus Trypanosoma

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- *Trypanosoma cruzi*
  - *Trypanosoma rhodesiense* and  
*T.gambiense*

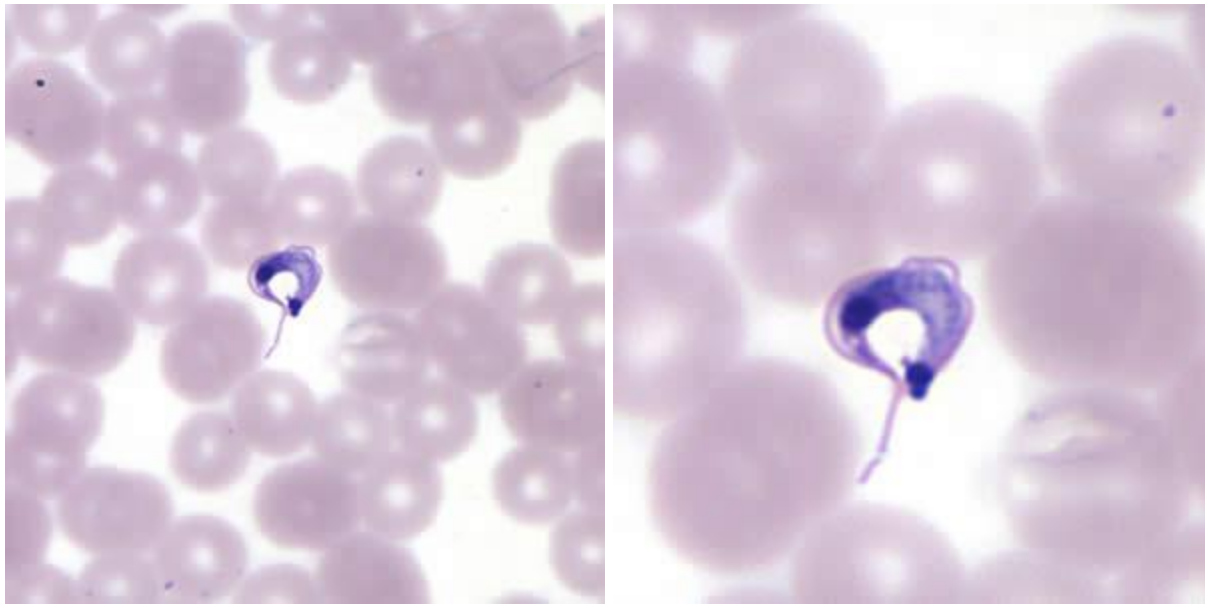
# *Trypanosoma cruzi*

## Diagnosis

- **I) Acute disease**
- **a) Wet blood preparation for motile organisms**
- **b) Thick and thin blood film for demonstration of C-shaped trypomastigote.**
- **c) Culture in NNN medium**
- **d) Muscle biopsy for amastigote**



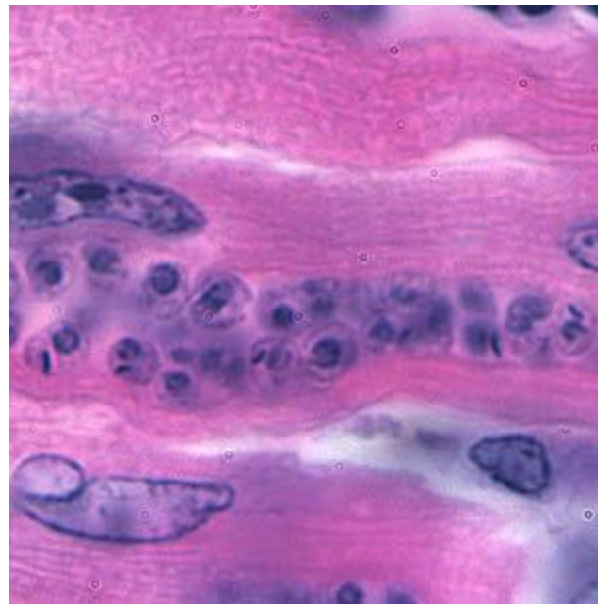
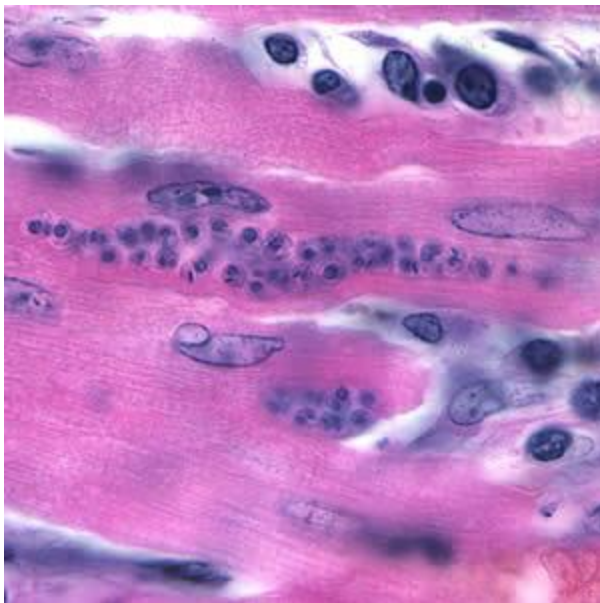
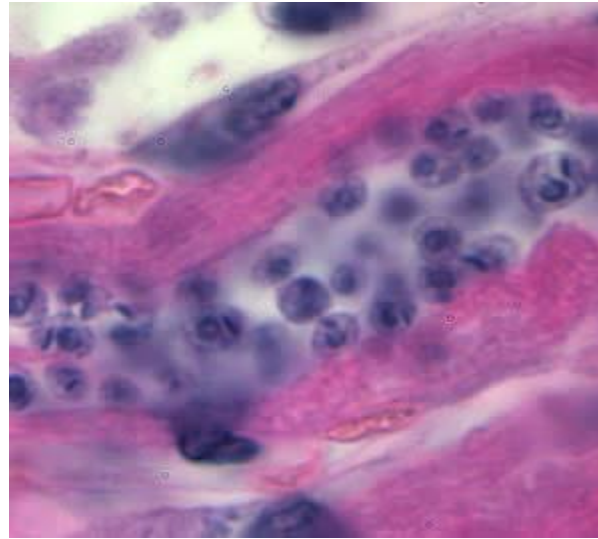
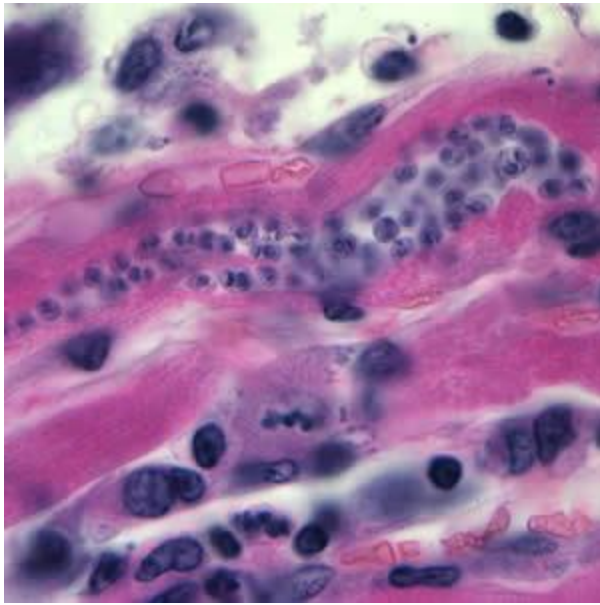
*T. cruzi* trypomastigotes in a thick blood smear



*T. cruzi* trypomastigote in a thin blood smear

## c) Culture in NNN medium





*Trypanosoma cruzi*  
amastigotes in heart  
tissue

- 
- **e) Polymerase chain reaction (PCR)**  
**when repeated attempts to visualize the organisms are unsuccessful.**



## ■ II) Chronic Chagas' disease

It is difficult because few trypomastigote in the blood

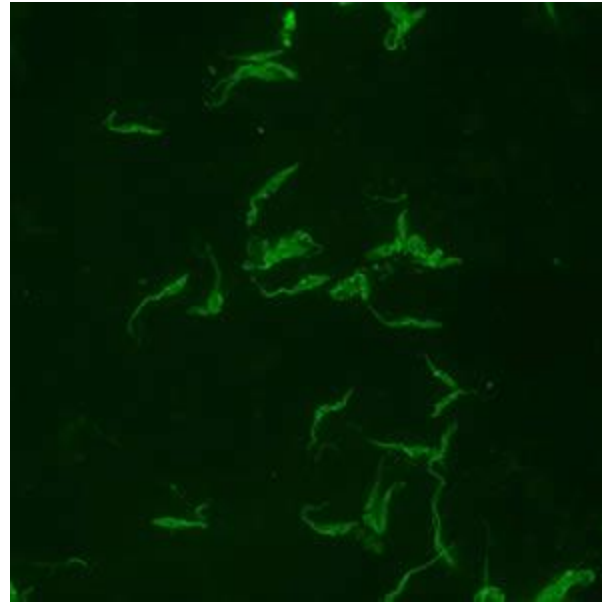
It is diagnosed by the detection of specific antibodies that bind to *T. cruzi* antigens (serology) and by xenodiagnosis.

### A) Serological test.

a) ELISA

b) Indirect fluorescent – antibody test

c) Indirect haemagglutination and complement fixation test.



Positive Indirect fluorescent – antibody test

## B) Xenodiagnosis

In chronic disease; which consists of allowing an uninfected, laboratory – raised reduviid bug to feed on the patient and, after several weeks, examining the intestinal contents of the bug for the organism.

# *Trypanosoma gambiense* and *Trypanosoma rhodesiense*

## Diagnosis

### 1) Microscopic Specimens

- a) Blood (Thick or thin blood film).
- b) aspirate of the chancre or enlarged lymph node.

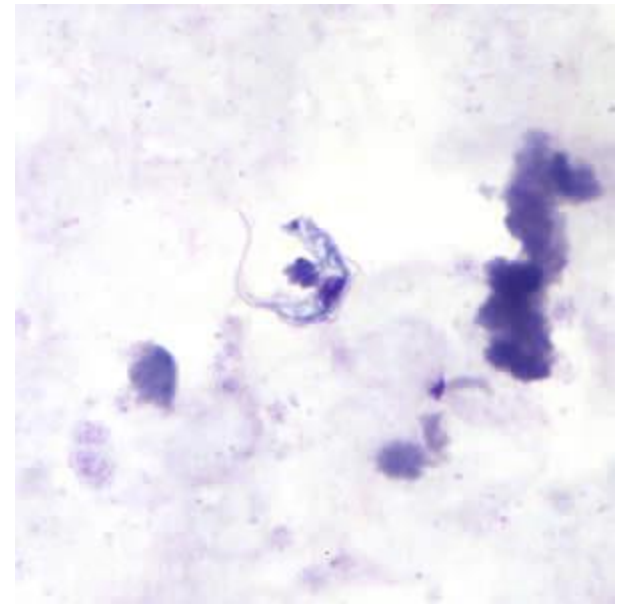
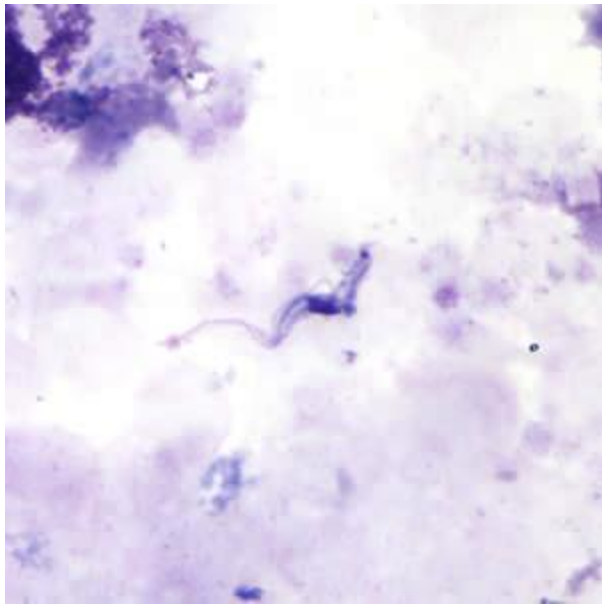
To reveals the trypomastigote.

### c) CSF in case of encephalitis

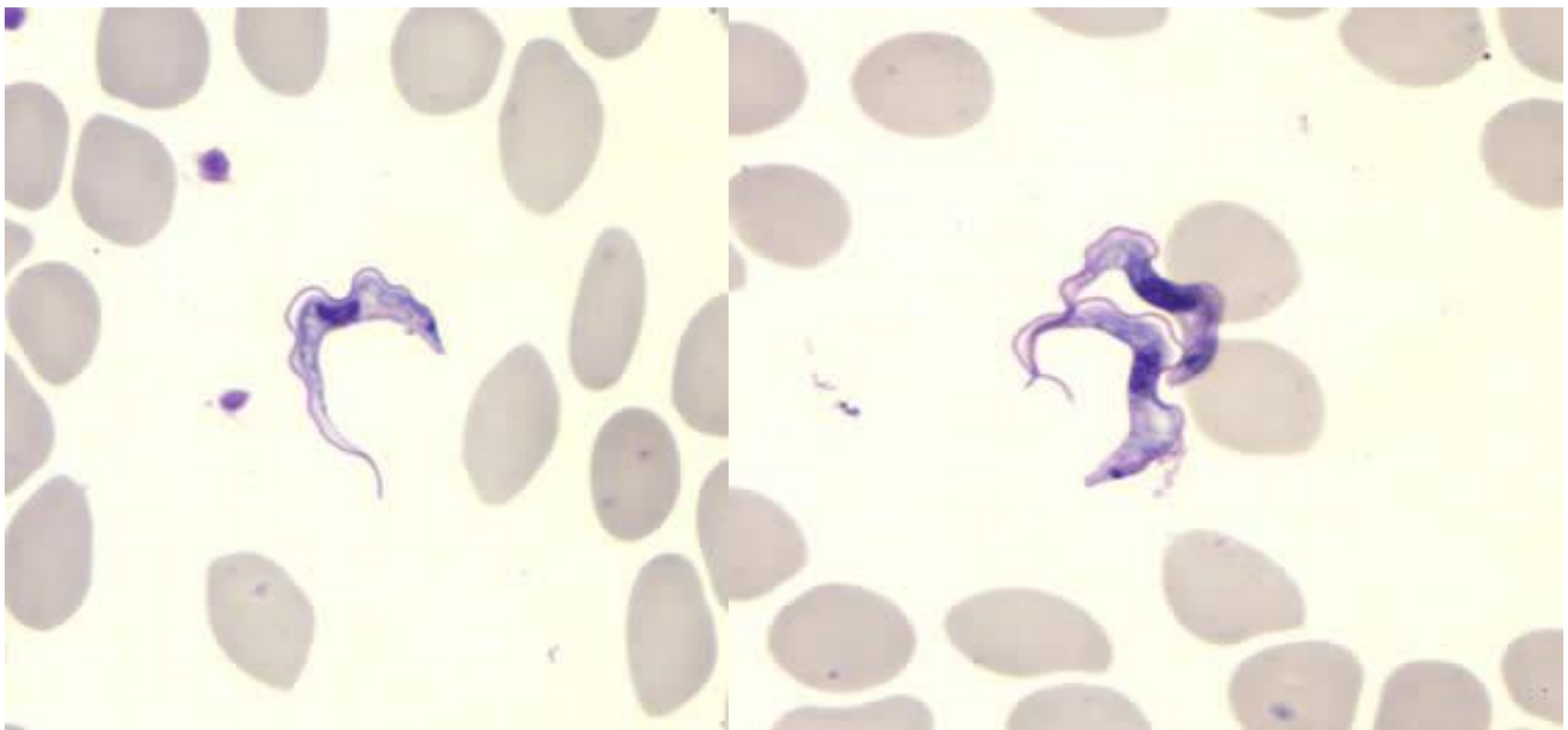
reveals trypanosomes with elevated protein level, pleocytosis, high IgM and CSF pressure.

### 2) Culture in NNN medium.

### 3) Serological tests, ELISA for IgM Ab.



*Trypanosoma brucei* sp. in thick blood smears



*Trypanosoma brucei* sp. in thin blood smears