

Clinical Disease

Trypanosoma brucei gambiense (West African) :

- frequently goes to CNS
- Causes the chronic, sleepiness associated with African Sleeping Sickness
- Apathy, mental dullness, disturbance of coordination
Increase in sleepiness, finally to coma, and death.
 - Death may also occur from malnutrition, falling, or other infections

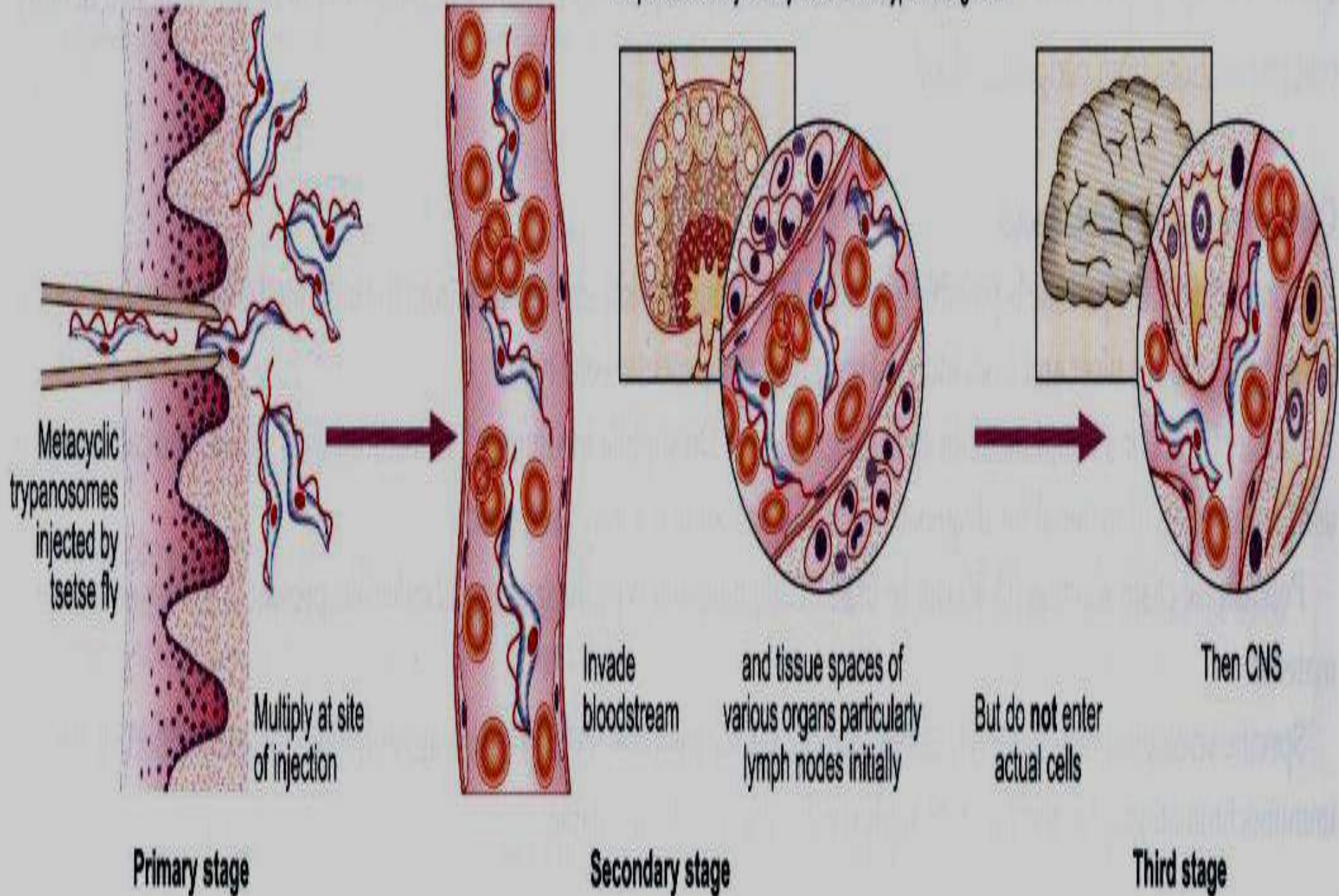
Pathogenesis & clinical manifestation

Trypanosomal chancre

Haematolymphatic stage

Meningoencephalitic stage

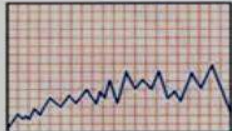
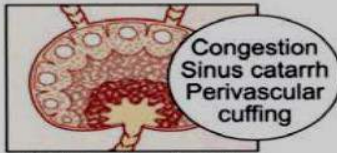



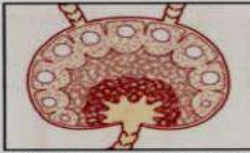
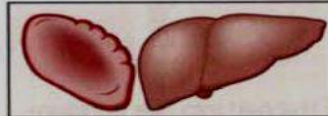

Reproduction by binary fission as trypomastigotes

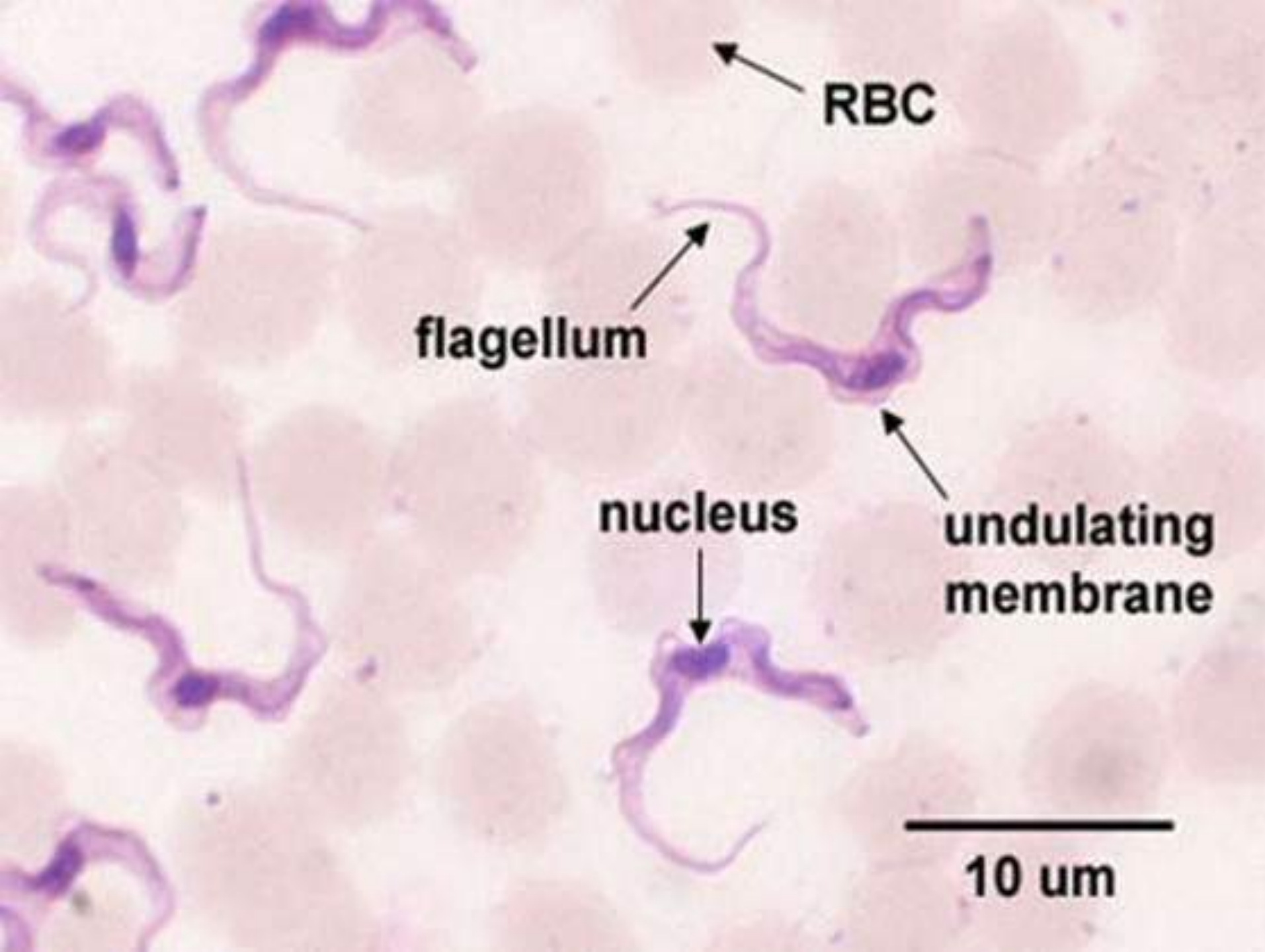


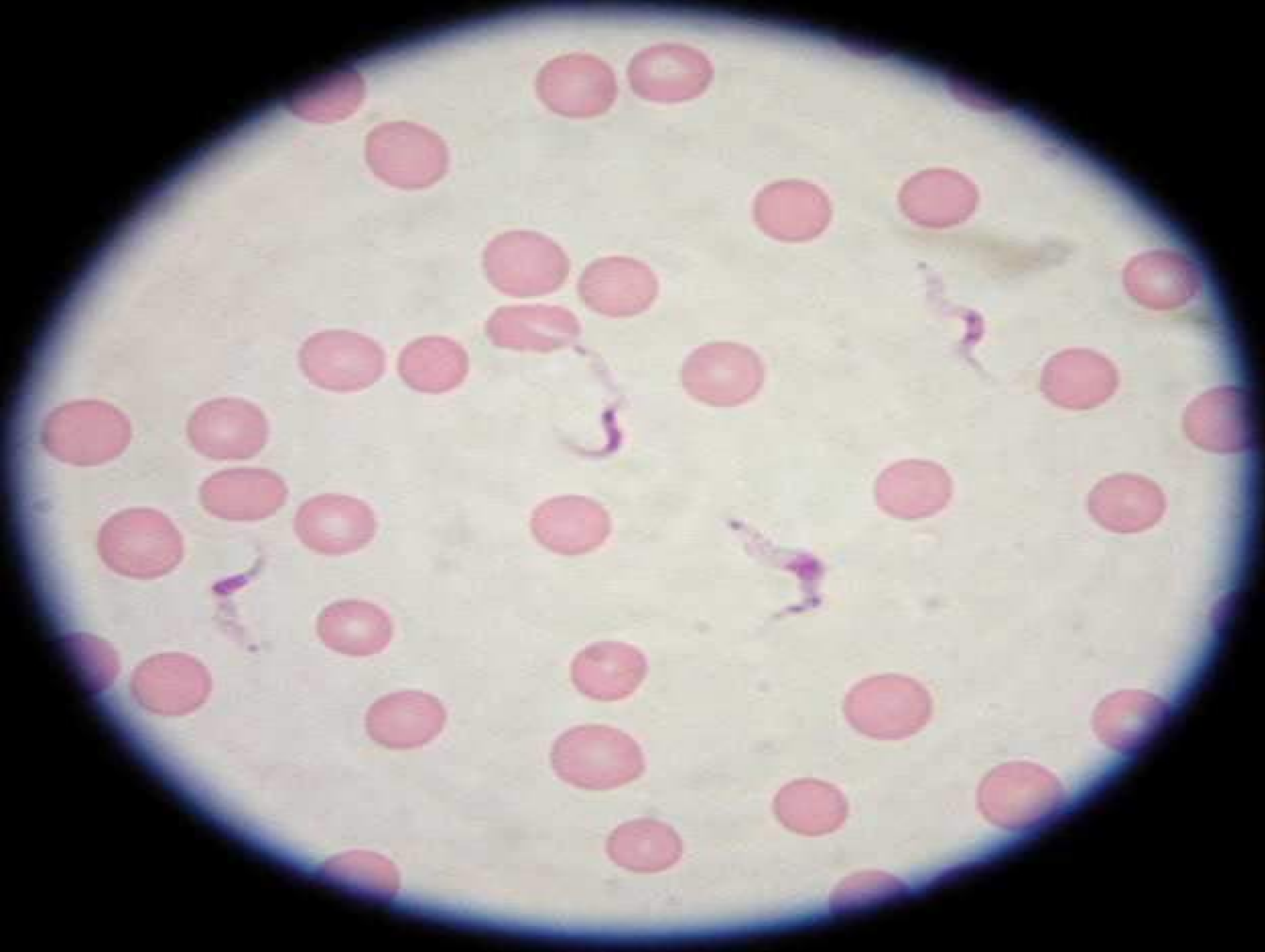
Chronic sleeping sickness
(Due to *T. gambiense*)

Differ only in degree

Acute sleeping sickness
(Due to *T. rhodesiense*)

| Clinico-pathological correlation | Primary stage | | Clinico-pathological correlation |
|---|--|---|---|
| <p>Firm, tender, painful red nodule 1–3 weeks</p> | <p>Secondary stage—predominantly blood and lymph node involvement</p> | | <p>As in chronic</p> |
| <p>Fever</p> <ul style="list-style-type: none"> • Low • Irregular • Recurrent <p>General toxic symptoms</p> <ul style="list-style-type: none"> • Backache • Headache • Tachycardia • Irregular skin rashes (circinate) • Transient oedema face <p>Lymphadenopathy</p> <ul style="list-style-type: none"> • Typically post-cervical <p>Later anaemia monocytosis</p> <p>Slight enlargement liver, spleen</p> | <p>Chronic</p>   <p>Congestion Sinus catarrh Perivascular cuffing</p> <p>Enlarged, soft, red. Later regress, fibrotic</p>  <p>Congested, slightly enlarged</p>  <p>Toxic depression Bone marrow</p> | <p>Acute</p>   <p>Similar lesions not so pronounced</p>  <p>Slightly enlarged</p>  <p>Toxic depression Bone marrow</p> | <p>Fever</p> <ul style="list-style-type: none"> • High • Persistent <p>Severe toxic symptoms</p> <ul style="list-style-type: none"> • Headache • Vomiting • Shivering • Oedema face • Serous effusion • Bone pain <p>Lymphadenopathy</p> <p>Myocarditis</p> <p>Anaemia</p> <p>Purpura</p> <p>Hepatitis</p> <p>Often death at this stage</p> |
| <p>Progressive involvement of the CNS</p> <p>General symptoms of progressive encephalitis</p> <p>Focal signs uncommon</p> <p>Dementia</p> | <p>Third stage—CNS involvement</p> | | <p>May have early onset of encephalitis with rapid development of coma</p> |
| <p>Note on epidemiology – Vectors of <i>T. gambiense</i> are riverine species, hence disease often epidemic:</p> <ul style="list-style-type: none"> • <i>G. palpalis</i> • <i>G. tachinoides</i> | | <p>Vectors of <i>T. rhodesiense</i> are game-attacking species, hence disease more often sporadic:</p> <ul style="list-style-type: none"> • <i>G. morsitans</i> • <i>G. pallidipes</i> • <i>G. swynnertoni</i> | |





Trypanosoma cruzi

Trypanosoma cruzi , causes **Chagas Disease** that can be transmitted to humans by blood-sucking reduviid bugs . Chagas disease (South American trypanosomiasis) is commonly seen in the countries of South America , it is also occur in central part of america.