

II.2.2.7 - Toxoplasma gondii

Cette coccidie est l'agent de la toxoplasmose.

Il vit dans l'épithélium intestinal d'un félin (hôte définitif) qui absorbe les pseudocystes avec la viande de divers hôtes intermédiaires.

Son cycle de développement présente 2 types d'hôtes intermédiaires: Le premier, herbivore, ou omnivore et le deuxième est carnivore.

La toxoplasmose est une parasitose congénitale grave. L'homme se contamine en ingérant des kystes contenus dans la viande insuffisamment cuite. Chez la femme enceinte, les mérozoïtes (**tachyzoïtes**) peuvent traverser le placenta pour infecter le fœtus.

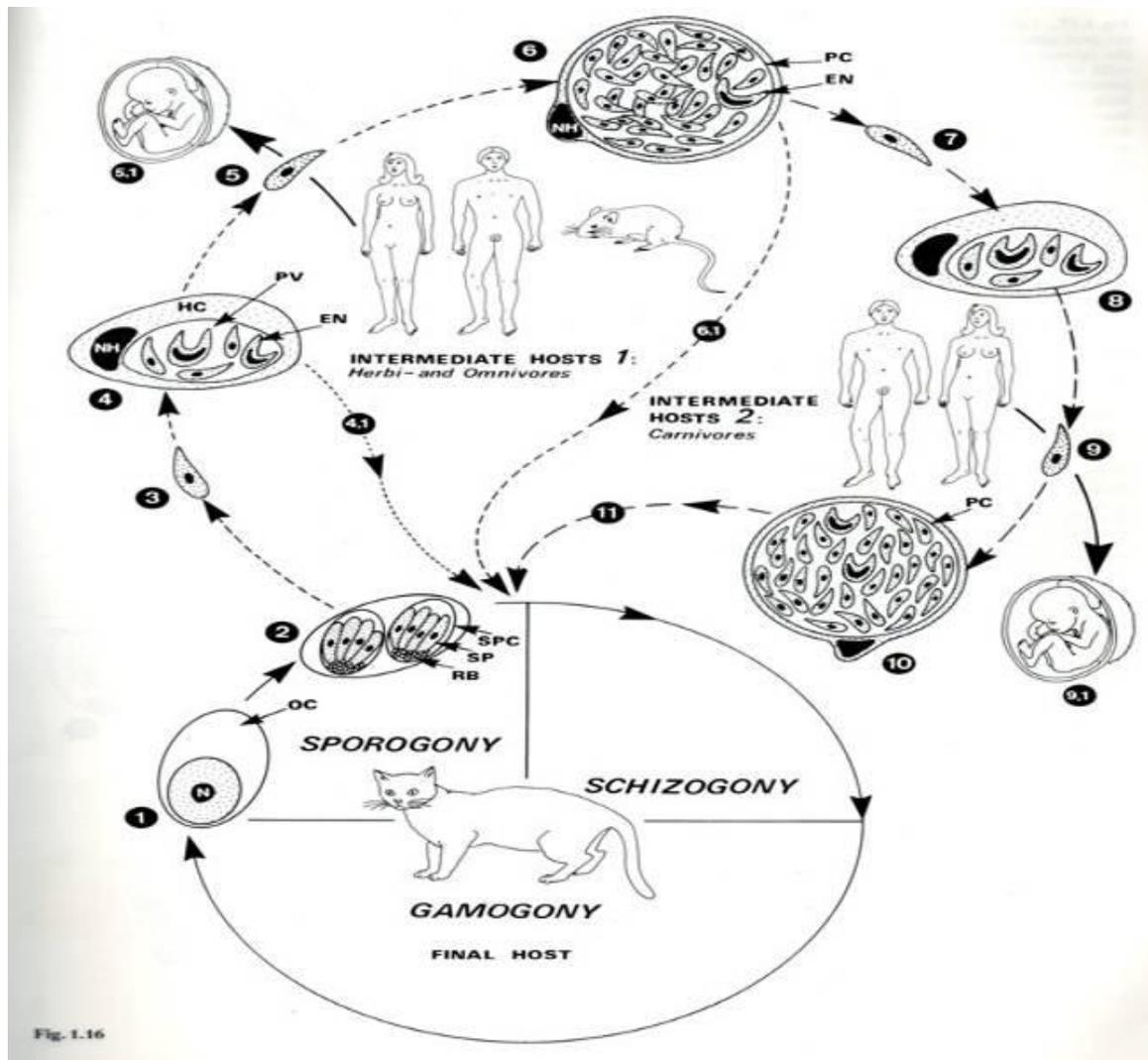


Fig. 1.16

Fig.1.6. Life cycles of *Trypanosoma brucei gambiense* and *T.b.rhodesiense*, causes of sleeping sickness disease in West and East Africa. 1 Slender trypanomastigote bloodstream forms (they also penetrate into the cerebrospinal fluid). These stages are characterized by a mitochondrion with sparse, short tubular cristae. The slender forms lack a functional Krebs cycle and cytochrome chain. 1.1 According to several authors amastigotes (i.e. micromastigotes) are seen 48 h p.i. inside the cells of chorioidea. 1.2 Transformation of amastigotes into sphaeromastigote forms (surface coat not investigated), which give rise to slender blood forms. 2 Intermediate trypanomastigotes, which reproduce by intensive binary fissions; cristae of mitochondrion lengthen. 3 Stumpy trypanomastigote forms have a partially functional Krebs cycle but still lack cytochromes. When these stages are ingested by the tsetse fly (*Glossina* spp.) they may develop inside this vector. According to recent results of Jenni et al. (1986), bloodstream forms are diploid and sexual processes with mating and DNA recombination occur inside the vector. 4 Trypanomastigotes (without surface coat) in the crop of the tsetse fly. A

waiting phase of at least 1 h is needed. 5 Transformation to epimastigote forms in the cardia and midgut of the tsetse fly. 6 Epimastigote forms have a mitochondrion with numerous platelike cristae, acting with an active Krebs cycle and cytochrome chain. Reproduction occurs by constant binary fission. These stages leave the intestine and enter the salivary glands. 7 Metacyclic trypanomastigote form from the salivary glands, which has a developing surface coat (*DS*) and a mitochondrion with closely packed tubular cristae. This stage is infectious for man and reservoir hosts when injected during the next blood meal of the vector. According to recent results of Zampetti-Bosseler et al. (1986) metacyclic trypanosomes have a haploid amount of DNA, compared with that of bloodstream forms and also of the proventricular forms, which initiate the invasion of the salivary glands. It is inferred that trypanosomes undergo meiosis during their developmental cycle in the tsetse fly's salivary glands and syngamy shortly after cyclic transmission. *DS*, Developing surface coat; *F*, flagellum; *KI*, kinetoplast; *MI*, mitochondrion; *N*, nucleus; *SC*, surface coat; *SF*, short flagellum of amastigotes