

## **Morphological characterization of inspecific elements in biliary drainage at the optic and electronic Microscope.**

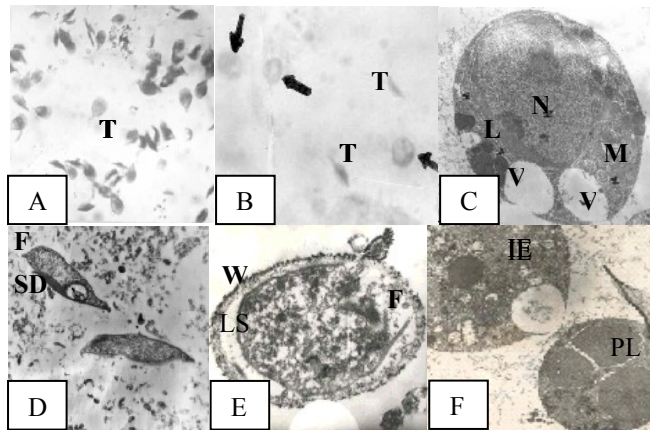
Mandado Pérez Sara, National Institute of Gastroenterology, Calle 25 No 503, Entre H e I, Vedado, CP 10400, Ciudad Habana, CUBA, smandado@infomed.sld.cu

### **SUMMARY**

Since some years ago in our country have been reported in biliary drainage "inspecific elements", name given to some round shaped structures of approximately 12µm, which generally appeared associated to trophozoites of *Giardia lamblia*, disappearing after an anti giardia treatment. Many gastroenterologists had considered such elements as Giardia(1-4)). Our object was to study them at the optic and electronic microscope for their comparison with the biologic forms of *G. lamblia* (5-8) . Samples of rich *G. lamblia* trophozoites and inspecific elements biliary drainage, culture trophozoites and *G. lamblia* cysts rich feces were used. The samples were processed by a routine technique for transmission electronic microscope, with some modifications. Our studies demonstrated that the morphologic characters of the "inspecific elements" correspond to Macrophages(9)( Figures A-F).

### **References**

- (1) Mandado Pérez S. Rev Cub de Medicina Tropical. 1990; 42: 286-302.
- (2) Sotto Escobar A. Rev Cub Higiene y Epidemiología. 1984; 22: 27
- (3) Alvarez Gómez L. Rev Cub de Medicina Tropical. 1977; 29: 129.
- (4) Fragoso Arbelo T. Tesis Esp. 1er Grado Gastroenterología, 1974. La Habana, Cuba.
- (5) LevineND. *Giardia lamblia*. Classification, Structure identification. Waterborne Trasmisionof Giardiasis ( Libro Resumen). EPA. Enviromental Protection Agency,1979:103-114.
- (6) Kadlec V. Folia Parasito. 1987; 134: 161
- (7) Harley GS. Am J Trop Med Hyg. 1977; 16: 23
- (8) Choissin EM. J Protozool.1964;18: 213
- (9) Werb Z. Macrófagos, StitesDP et al. Inmunología Básica y Clínica. La Habana, Ed. Científico- Técnica, pp103-114.



**Figure 1-** **A:** culture *Giardia lamblia* trophozoites (T) H y E x 400, **B:** inorganic elements (black arrows) in presence of *G. lamblia* trophozoites (T) from biliary drainage HyE x 400, **C :** Inorganic element in ultrafine section at the electronic microscope, showing a peripheral nucleus ( N), lysosomes (L), vacuoles (V) and mitochondrion (M) in the cytoplasm, x 10,000 **D:** Two trophozoites at the electronic microscope, where we can see the sucking disk ( SD), the *Giardia* trophozoite typical nuclei and flagellae, x 5,000 **E:** Electron Micrograph of *G. lamblia* cyst with the sucking disk( SD), the lacunar space ( LS), where there are some flagellae ( F ), and the cyst wall ( W ) x10,000, **F:** Electronic micrograph showing "inorganic element phagocytic activity" (IE) and the interaction between this cell and a polymorphonuclear leukocyte (PL), x 7,000.