

Multiple digital *Histoplasmosis* in a cat. As initial clinical presentation.

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Fig. 1- Clinical presentation with an ulcerated nodule affecting the nail bed.

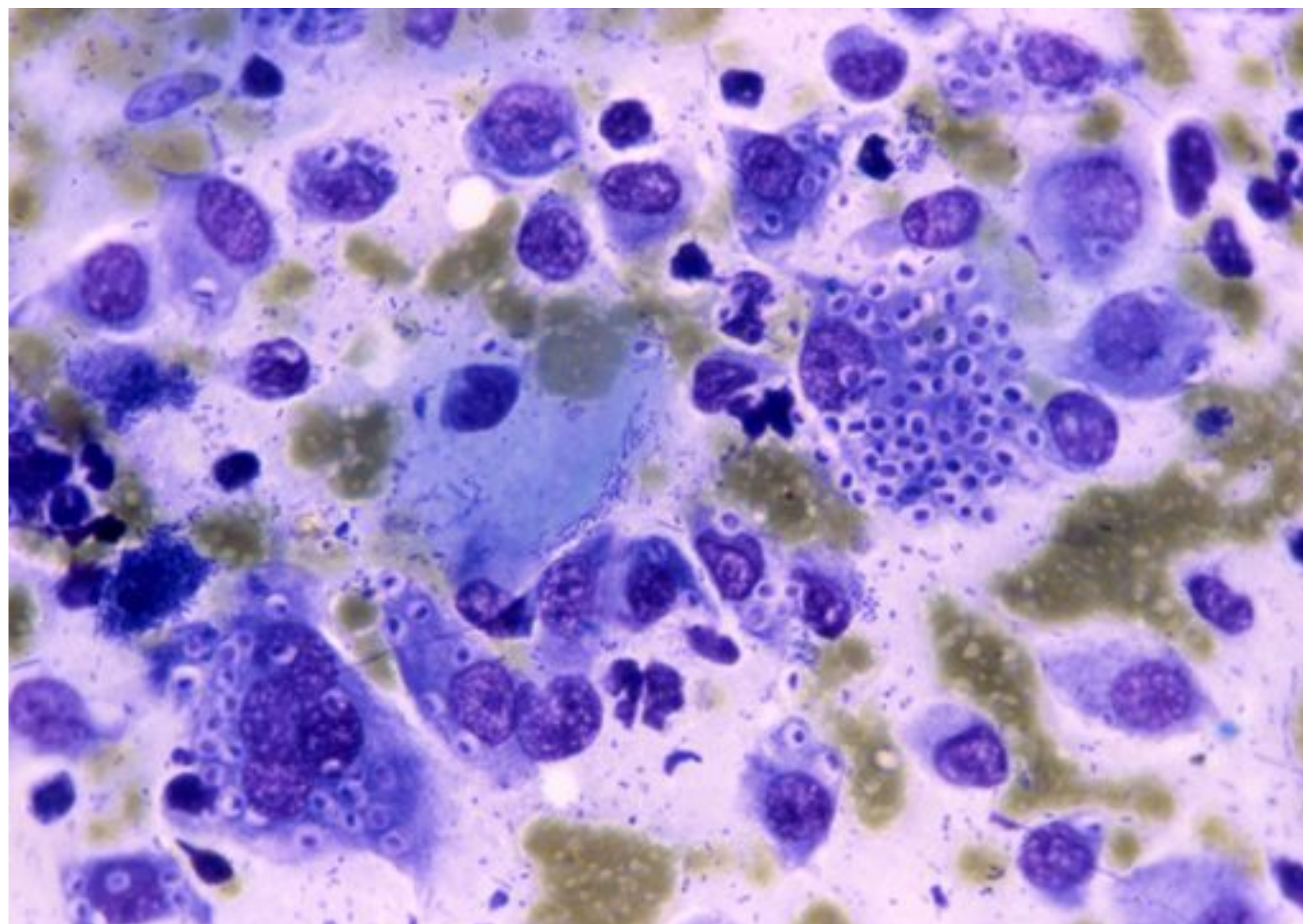


Fig. 2- A lot of macrophages showing numerous small round bodies, with evident halo, similar to ones describing in the *Histoplasma* sp, Giemsa stain 40x.

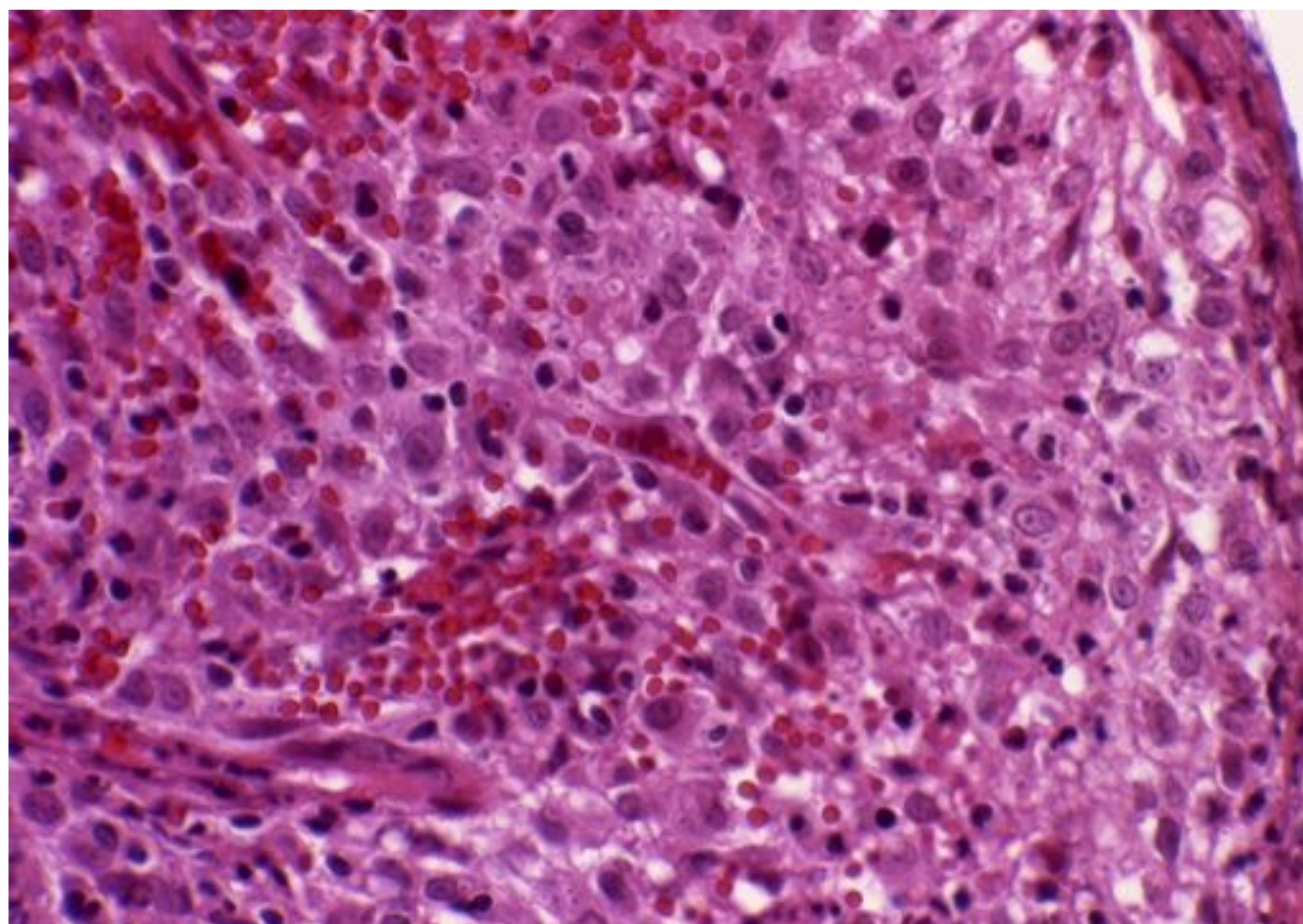


Fig.3- The dermis is completely invading with macrophages (phagocytes) , with identical structures seen in fig.2 H.E. stain 40x.

Histoplasma capsulatum is a saprophytic dimorphic fungus of tropical and subtropical regions. It grows in soil with high nitrogen content that is rich in organic matter (bird and bat droppings). It is reported mainly in young cats where it can produce systemic infections, likely acquired via aerosol with respiratory signs (dyspnea and tachypnea). Rarely, this can lead to disseminated dermal presentation. Alternatively, solitary skin lesions may be produced by direct wound inoculation. The cutaneous form is infrequent, affecting mainly the face, nose and pinnae and is characterized by papules, nodules, ulcers and draining tracts.

A seven-year-old shorthaired spayed female cat was presented for evaluation of three nodules (< 0.4 cm) in the digits nail bed of both front limbs (Fig. 1).

Cytological examination (Giemsa stain) showed predominantly macrophages, which contained numerous small round bodies (2 to 4 μ m in diameter), with an evident halo and yeast like structures (Fig. 2). Histopathological analysis (H&E, PAS, and GMS stain) showed lymphocytes, plasma cells and fibroblasts. Additionally, many macrophages had structures consistent with *H. capsulatum* (Fig. 3). It was isolated in Sabouraud media plates and identified based on colony morphology.

The patient was treated with fluconazole for six weeks with complete clinical recovery. A year later, the cat began to lose weight significantly and show mydriasis. Additionally, small nodules (< 0.3 cm) were present in both upper eyelids and oral cavity. A histological and cytological study revealed a similar organism as the previous year, and clinical relapse was suspected. Euthanasia was elected due to lack of response to treatment and progressive deterioration. In the literature, the dermal form of Histoplasmosis has been considered infrequent. To authors' knowledge this clinical presentation has not been reported yet. Especially in adult cats, this is an important differential of cutaneous nodules.

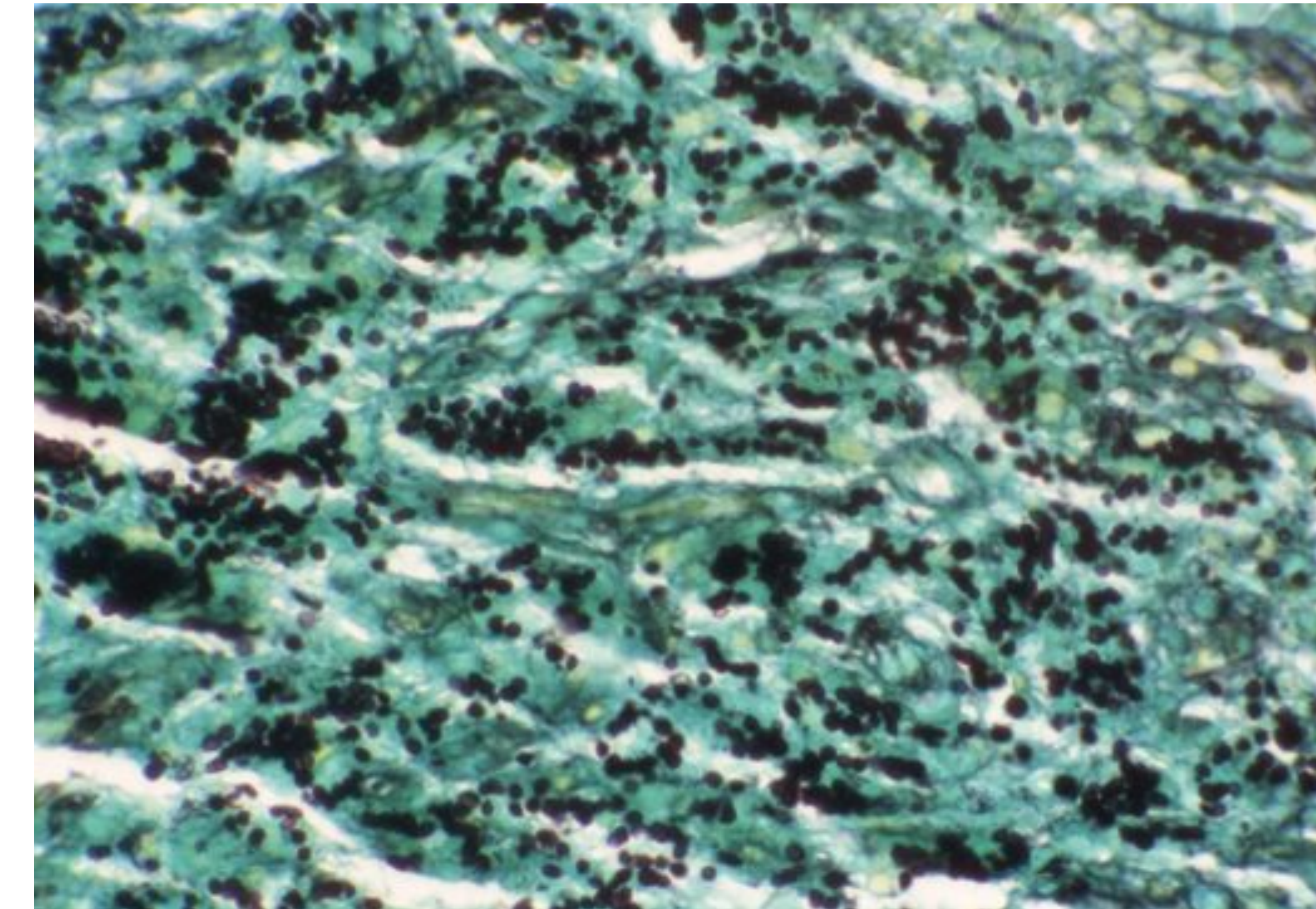


Fig.4- Numerous round yeast like microorganisms are present. GMS stain. 40x

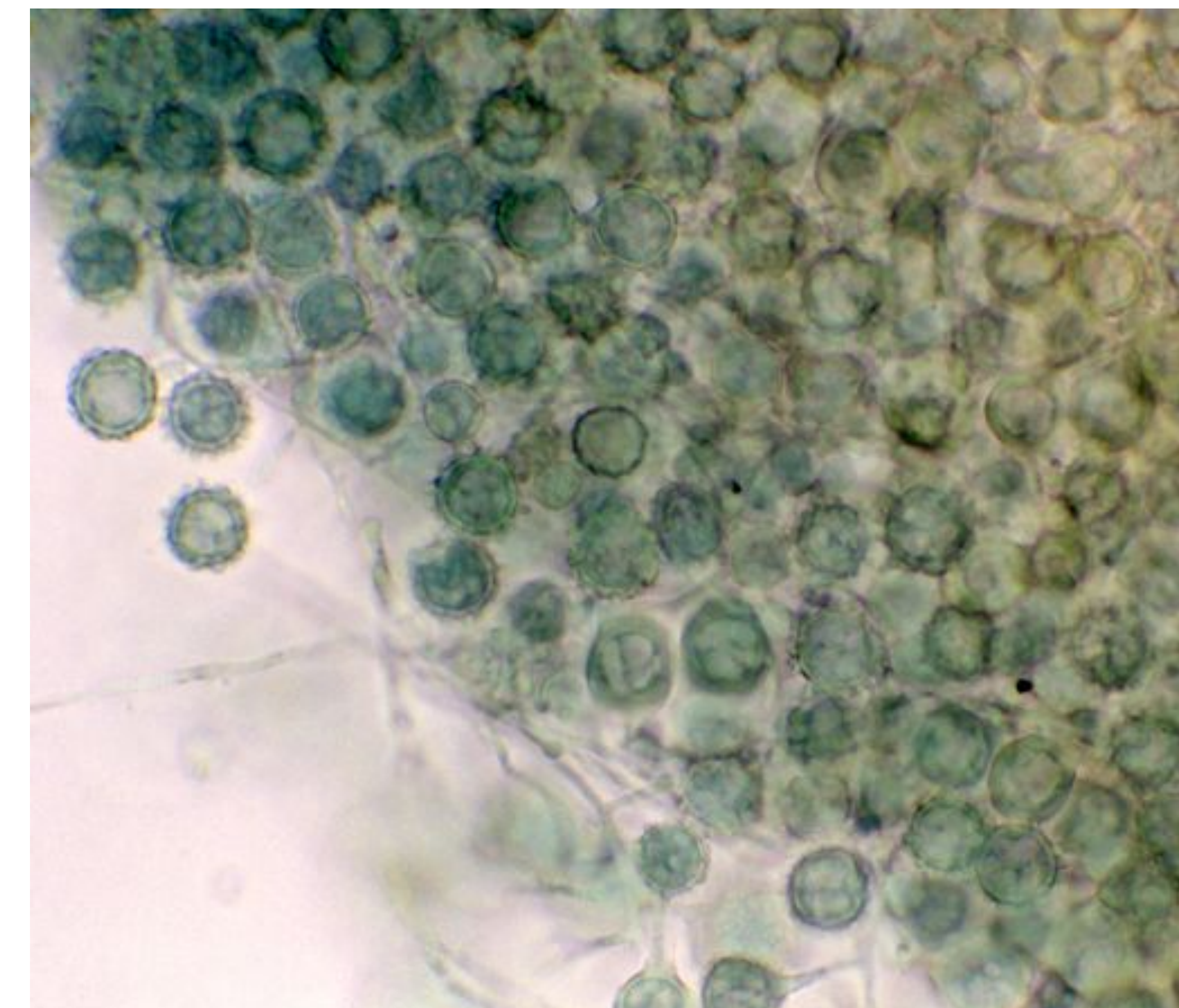


Fig.5- A typical tuberculate macroconidia (a "boat wheel" aspect). From the primary culture. Lactophenol stain. 40x

