

# **Actualités sur l'histoplasmose**

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# Histoplasmose

*H. capsulatum*

*variété capsulatum*

*variété duboisii*

**Histoplasmose  
« américaine »**

**Histoplasmose  
africaine**

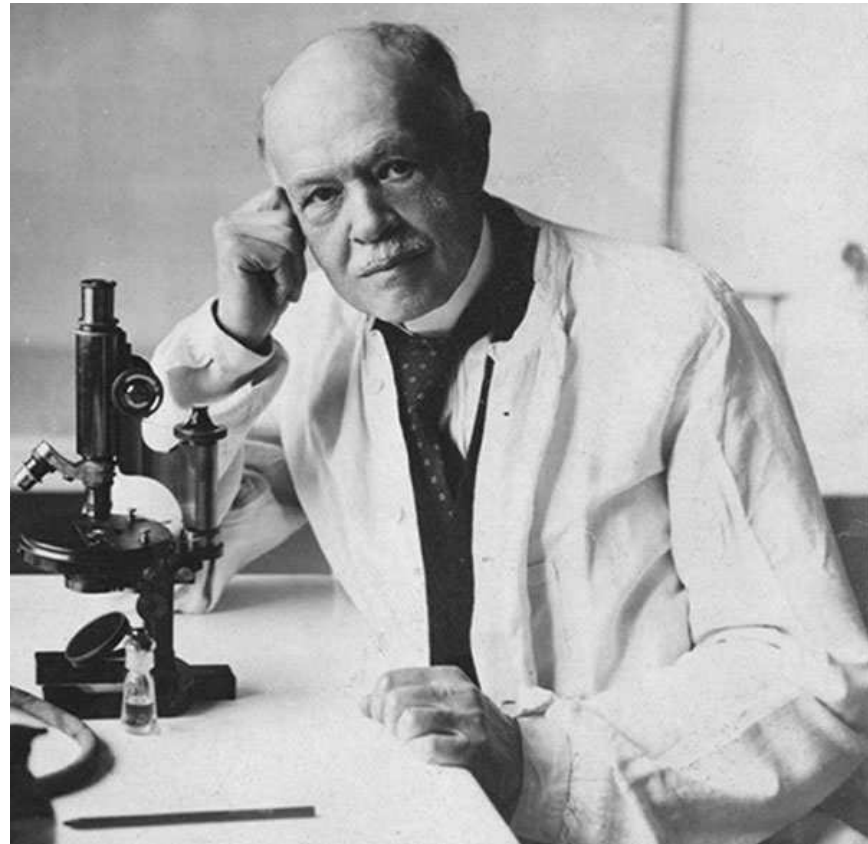
# Historique

- 1906 Protozoaire



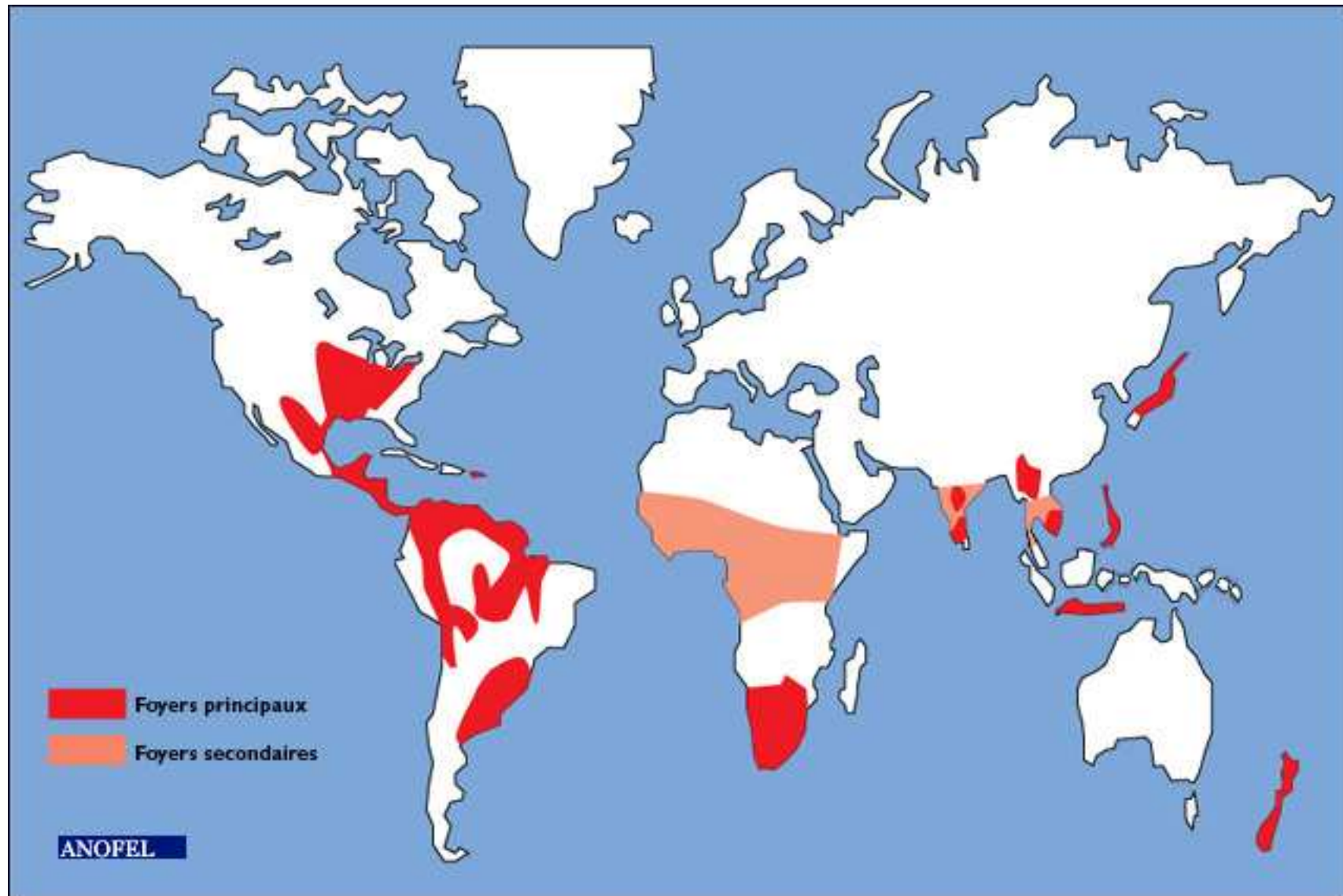
**S. Darling (1872-1925)**

- 1912 Champignon



**H. da Rocha-Lima (1879-1956)**

## Histoplasmose à *H. capsulatum* variété *capsulatum*



# Histoplasmose à *H. capsulatum*



## Réservoir : sol riche en azote (guano)







**Infection** 2008; 36: 282-4

**Case Report**

## Pulmonary Histoplasmosis in Three Austrian Travelers After a Journey to Mexico

M. Hoenigl, I. Schwetz, R. Wurm, S. Scheidl, H. Olschewski, R. Krause







Journal of  
**TRAVEL MEDICINE**

2012; Volume 19 (Issue 1): 64–65

## Imported Pulmonary Histoplasmosis in Three French Cavers After a Trip to Cuba



[www.CubaVacationsTravel.com](http://www.CubaVacationsTravel.com)







# Histoplasmosse à *H. capsulatum*

- Manifestations respiratoires +++
  - Pneumopathie fébrile
    - Primo-infection (5-20j)
    - Formes secondaires généralisées aiguës (nourrissons)
      - » Lésions des muqueuses oropharyngées
    - Forme tertiaires ou pulmonaire chronique
      - » Cavitaires, (granulomes tuberculoïdes)
- Formes disséminées
  - SIDA : CD4 < 50
    - Peau, muqueuse, ganglions, appareil digestif,
    - Organes profonds (foie, rate, gg, surrénales, moelle)
  - Transplantations (moelle, rein, foie...)
    - Réactivation
    - Transmission



# *H. capsulatum* et manifestations cutanées

- Étude prospective (Durban)
  - 32 mois, 14 histoplasmoses
- Lésions
  - Papules (7)
  - Nodules (4)
  - Plaques (5)
  - Érythème polymorphe (2)
  - Vascularites (2)
  - Dermatose exfoliatrice (1)
- Diagnostic
  - 77% (17/22) : histologie
  - 100% : culture



**Figure 1.** Erythematous-violaceous papular lesions predominantly located on the face.

*Actas Dermosifiliogr.* 2007;98:372-6

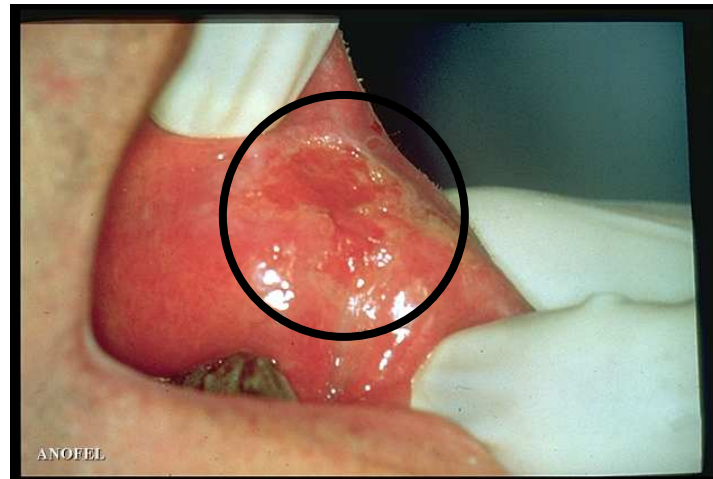
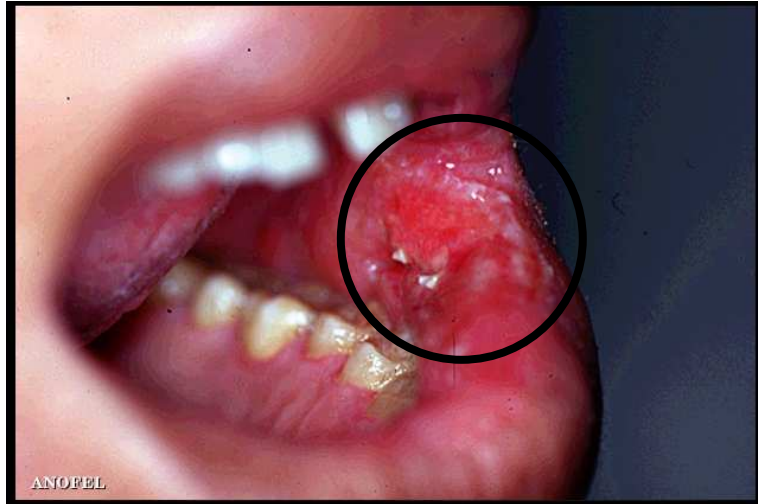


**Figure 1** Multiple, succulent, erythematous plaques, papules, and nodules on the face

*International Journal of Dermatology* 2006, 45, 573-576

Ramdial K et al. *J Cut Pathol* 2002; 29: 215-25

# *H. capsulatum* et atteintes muqueuses



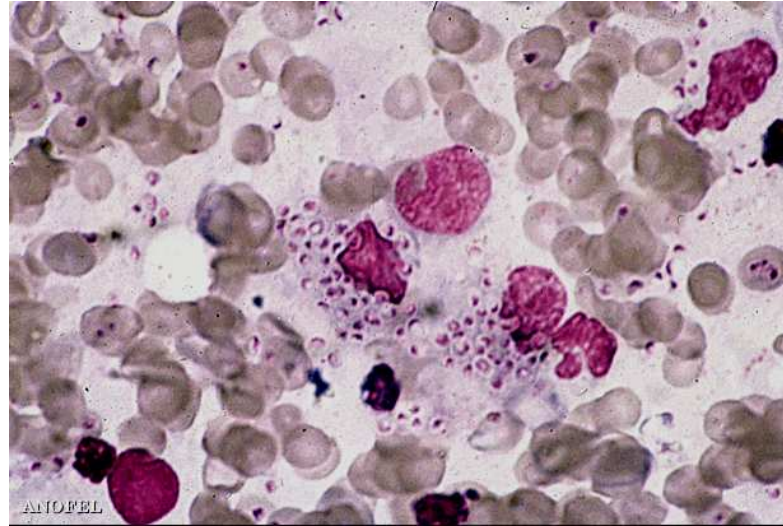
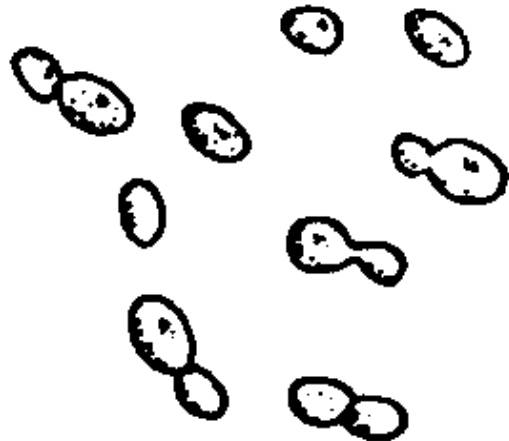
# Diagnostic : direct

Peau, muqueuses,  
Moelle, LBA...

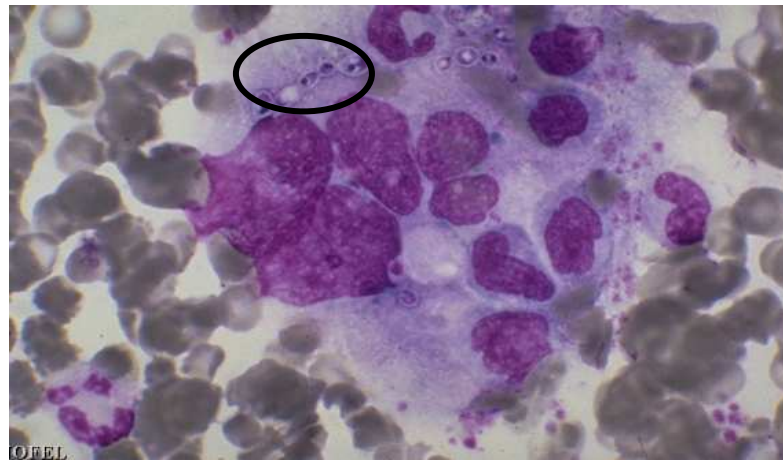


Predominantly intracellular

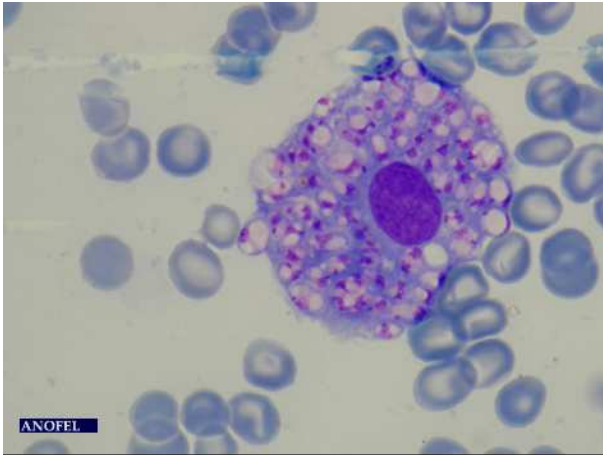
1 à 3  $\mu$ , mal colorées, bourgeonnement étroit



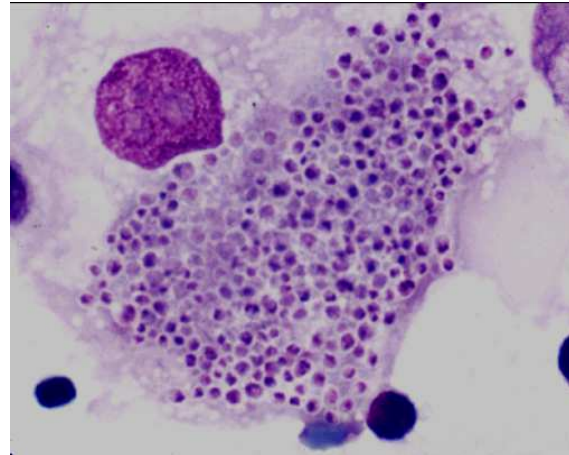
Frottis de moelle



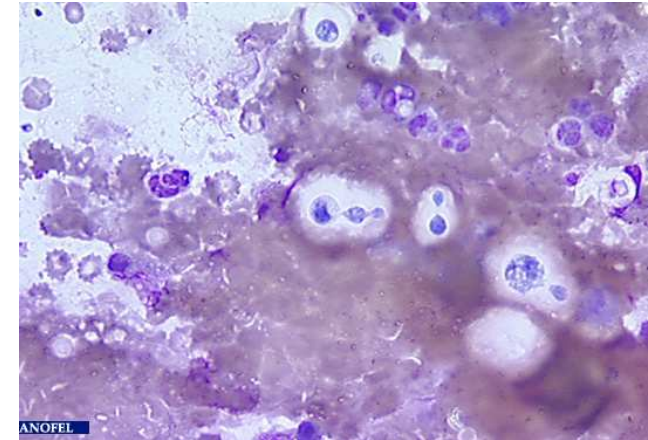
# Diagnostic différentiel



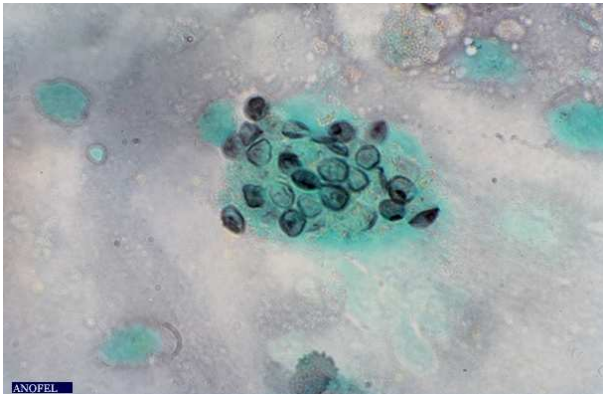
*Leishmanias* (frottis de moelle)



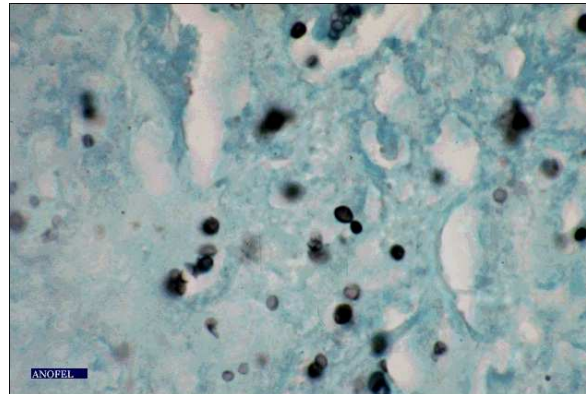
*H. Capsulatum* (LBA)



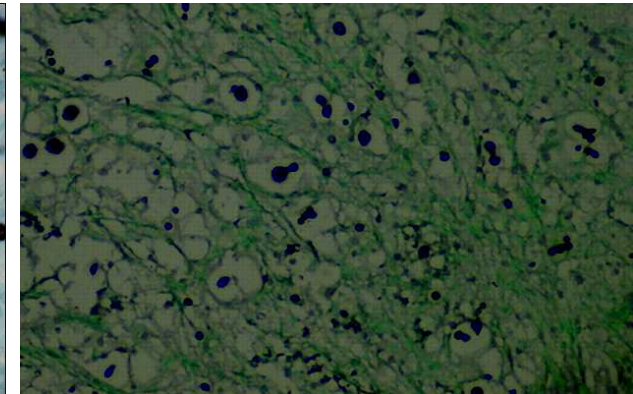
*Cryptocoque* (LBA)



*Pneumocystis* (LBA)



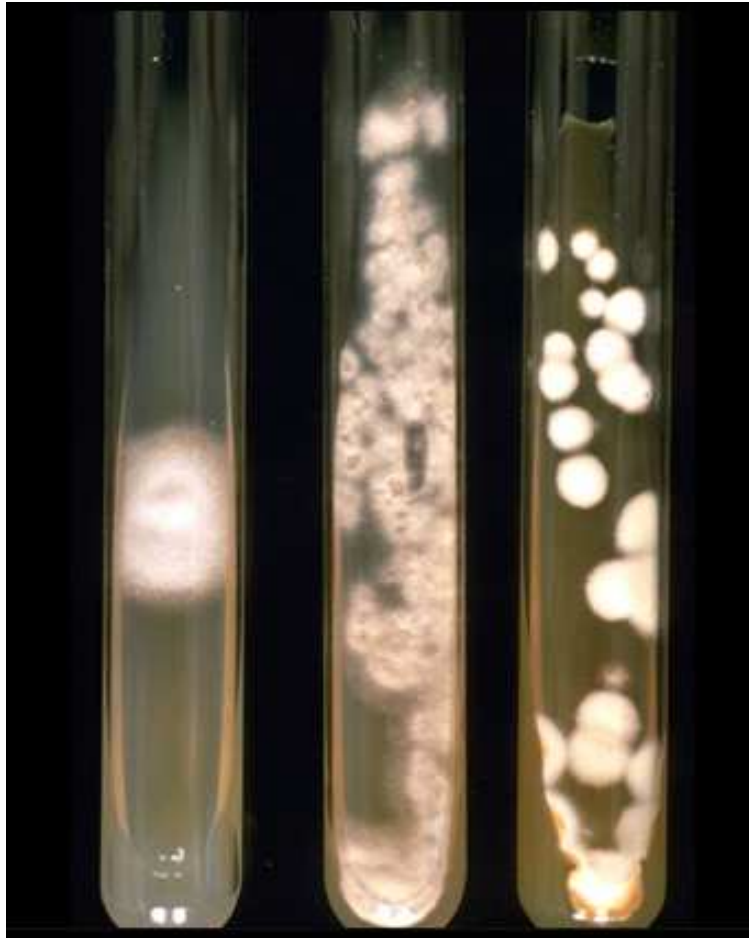
*H. Capsulatum* (biopsie pulm.)



*Cryptocoque* (biopsie pulm.)



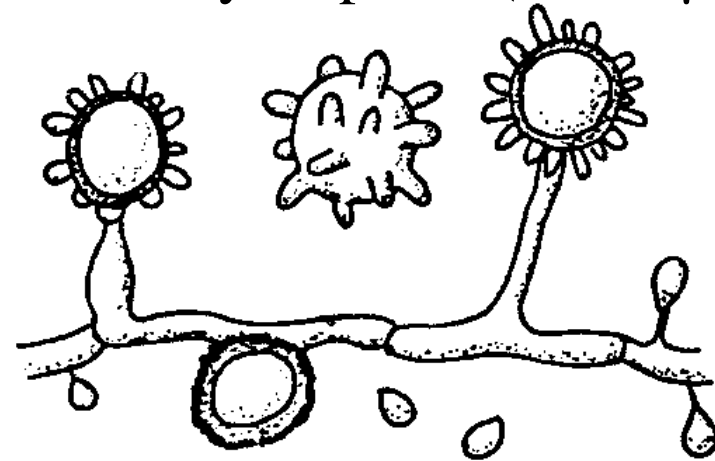
# Diagnostic : culture



Culture à 27°C (Sabouraud)  
10-30 jours

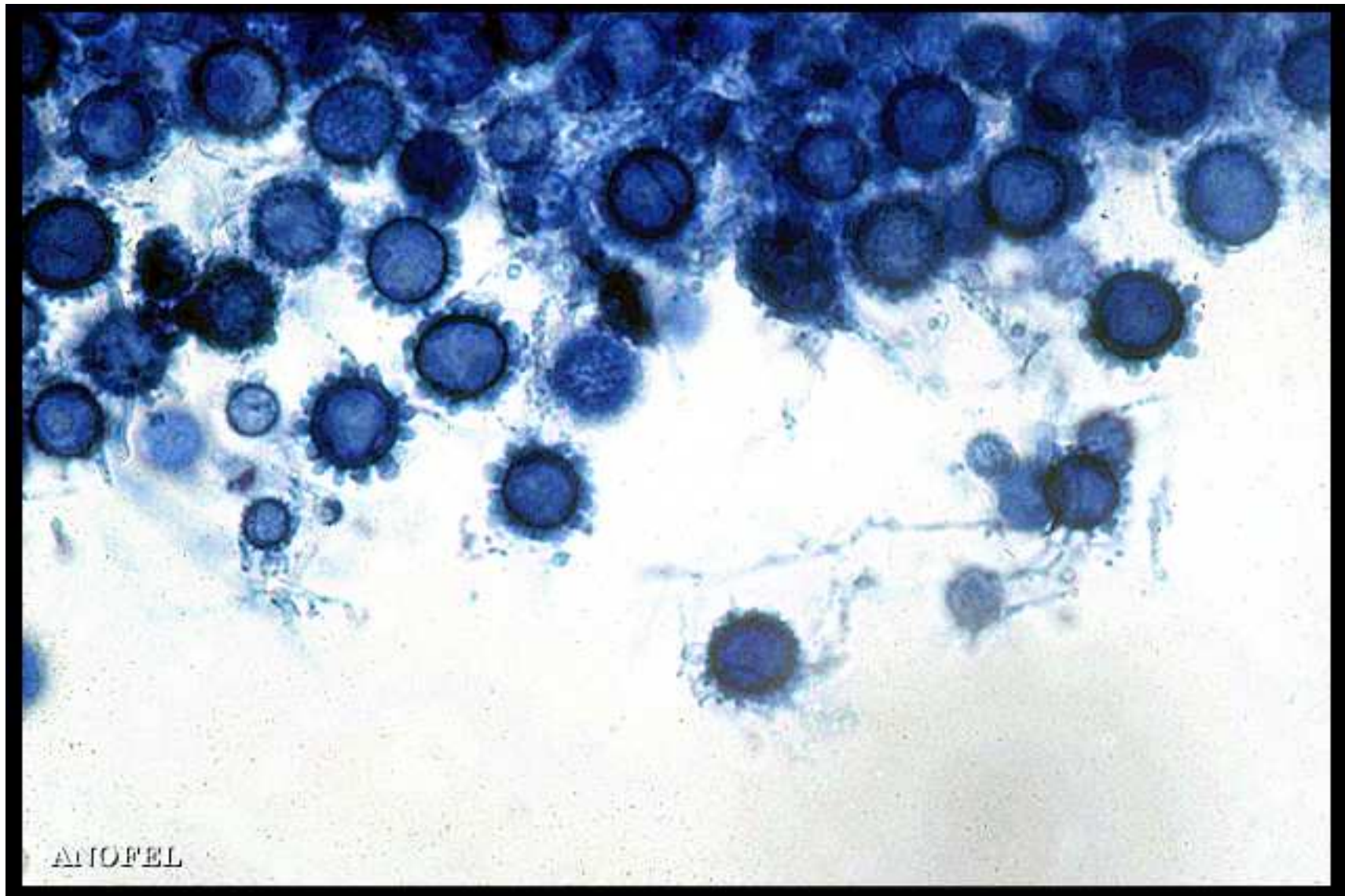
- Ouverture sous hotte +++

chlamydospores (15-25  $\mu$ )



*Histoplasma (capsulatum)spp*

**Agent de classe 3**



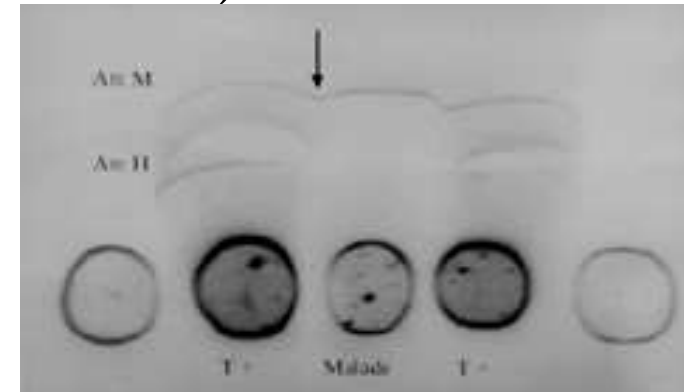
# Valeurs des examens

## Histoplasmosse hors primo-infections (CNRMA)

|                     | <b>VIH –<br/>(n =16)</b> | <b>VIH +<br/>(n = 75)</b> | <b>p</b> |
|---------------------|--------------------------|---------------------------|----------|
| <b>Direct/histo</b> | 14/16 (86%)              | 64/75 (85%)               | NS       |
| <b>Culture +</b>    | 14/16 (86%)              | 66/75 (88%)               | NS       |
| <b>Sérologie +</b>  | 7/16 (44%)               | 10/75 (13%)               | 0.01     |
| <b>GM +</b>         | 0/6 (0%)                 | 15/20 (75%)               | 0.002    |

# Diagnostic sérologique

- Recherche d'anticorps
  - Electrosynérèse (Institut Pasteur, CNRMA)
- Recherche d'antigène
  - Antigène spécifique
    - Uniquement aux USA
  - Antigène aspergillaire
    - Forme disséminée du VIH +



*Electrosynérèse*

## Histoplasmosis in Europe: Report on an epidemiological survey from the European Confederation of Medical Mycology Working Group

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**Table 4** Sites in patients with disseminated histoplasmosis ( $n = 62$ ) from which culture and/or histology were positive (for some patients culture and/or histology was positive at more than one site).

| Site             | No. positive for culture | No. positive for histology <sup>1</sup> |
|------------------|--------------------------|---|
| Blood            | 18                       | 1                                       |
| Skin             | 8                        | 13                                      |
| Lymph nodes      | 9                        | 6                                       |
| Oral lesions     | 5                        | 6                                       |
| Bone marrow      | 8                        | 3                                       |
| Gastrointestinal | 1                        | 6                                       |
| Lungs            | 2                        | 5                                       |
| BAL/Sputum       | 5                        | 1                                       |
| Liver            | –                        | 5 <sup>2</sup>                          |
| Adrenal glands   | 1                        | 5                                       |
| Bone or joint    | 2                        | 2                                       |
| Pus or abscess   | 2                        | 3                                       |
| Urine            | 2                        | –                                       |
| Oesophagus       | 1                        | –                                       |
| Spleen           | –                        | 3 <sup>2</sup>                          |
| CSF              | 1                        | –                                       |
| Ascites          | 1                        | –                                       |

<sup>1</sup>One patient also had positive histology at 'disseminated sites'.

<sup>2</sup>All specimens studied post mortem.

Table 3 Positive diagnostic tests (as a percentage of those patients tested) that contributed to a diagnosis of histoplasmosis<sup>1</sup>.

| Method                  | Acute pulmonary<br>(n = 31) | Chronic pulmonary<br>(n = 6) | Disseminated<br>(n = 62) | 1<br>: |
|-------------------------|-----------------------------|------------------------------|--------------------------|--------|
| Histology               | 6 (100%)                    | 2 (100%)                     | 42 <sup>2</sup> (100%)   |        |
| Culture                 | 5 (31%)                     | 4 (80%)                      | 44 (83%)                 |        |
| Antigen                 | –                           | –                            | 1 (50%)                  |        |
| Antibodies (any method) | 24 (89%)                    | 1 (50%)                      | 17 (28%)                 |        |
| Antibody                |                             |                              |                          |        |
| ID                      | 19 (76%)                    | 1 (100%)                     | 14 (37%)                 |        |
| CFT                     | 9 (90%)                     | 1 (100%)                     | 8 (47%)                  |        |
| WB                      | 9 (90%)                     | 0 (0/1)                      | 4 (67%)                  |        |
| Skin test               | 0                           | 1 (100%)                     | –                        |        |
| Imaging                 | 31 (100%)                   | 6 (100%)                     | 29 (91%)                 |        |

ID, Immunodiffusion; CFT, Complement fixation test; WB, Western blot.

<sup>1</sup>Patients may have been diagnosed by more than one method.

<sup>2</sup>Infection due to *H. capsulatum* var *duboisii* diagnosed in 3 patients.

# Histoplasmose et anti-TNF alpha

- **Infliximab-induced disseminated histoplasmosis in a patient with Crohn's disease.** Galandiuk S et al. 2008 Nat Clin Pract Gastroenterol Hepatol
- **Atypical presentation of histoplasmosis in a patient with psoriasis and psoriatic arthritis on infliximab therapy.** Kamili et al. 2010 J Drugs Dermatol
- **Disseminated H. capsulatum infection presenting with panniculitis and focal myositis in rheumatoid arthritis treated with etanercept.** Bourré-Tessier et al. 2009 Scand J Rheumatol
- **Infections fongiques (n) pour 100 000 patients traités par infliximab**
  - FDA adverse reporting system
    - Histoplasmose (18,78)
    - Candidose (10,15), Aspergillose (8,63), cryptococcose (5,08), pneumocystose (0,51)

Wallis R et al. 2005. Clin Infect Dis.



# Endocardite à *H. capsulatum* chez une patiente traitée pour polyarthrite rhumatoïde

- **Cas clinique**
  - Femme 58 ans
    - Corticoïdes + Immunosuppresseurs
- **HDM**
  - Fièvre 39°5C, anorexie, toux, céphalées
  - Radio de thorax : miliaire
  - LBA : GM 2.7, Hémoc < 0 (GM sérique < 0)
  - Echo transthoracique : végétations mitrales
    - Histologie, culture (J10) : *H. capsulatum*
      - Visites grottes Brésil, Costa Rica
- **Traitement**
  - Ampho B liposomale
  - Décès insuff. cardiaque (thrombose prosthétique)

Letranchant L et al. 2012. Mycopathologia

Actualités Microbiologie 2012

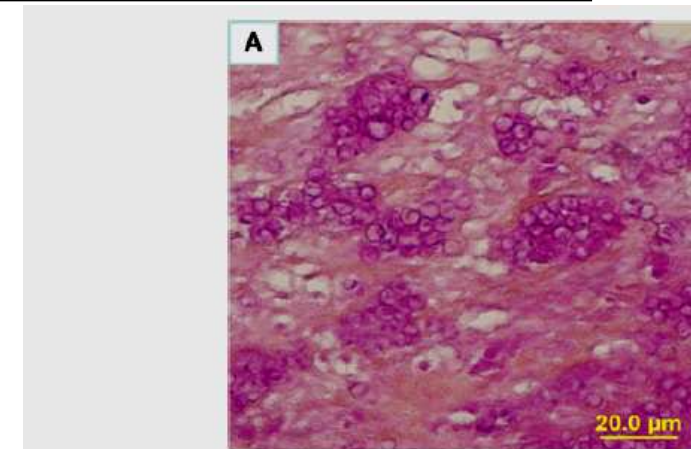
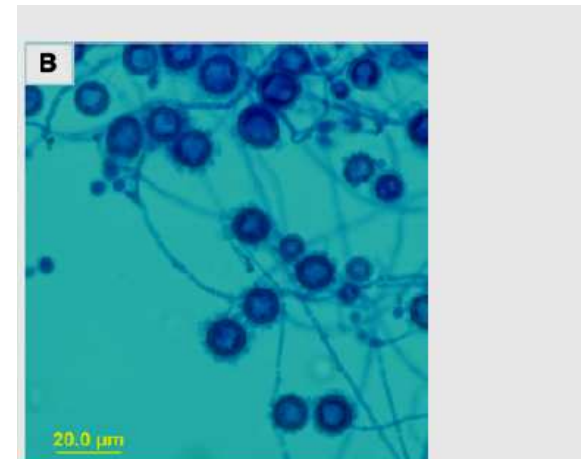
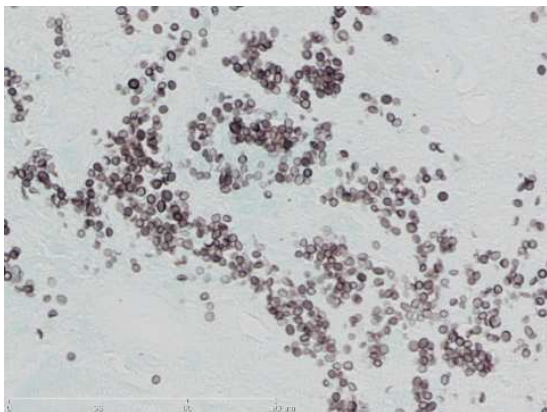
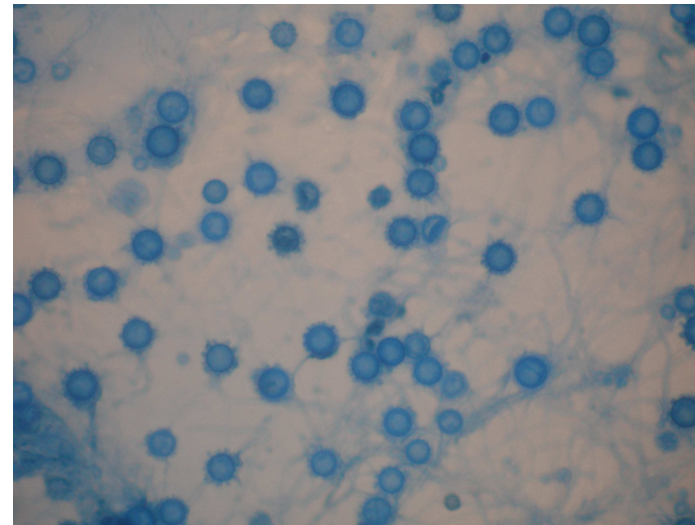
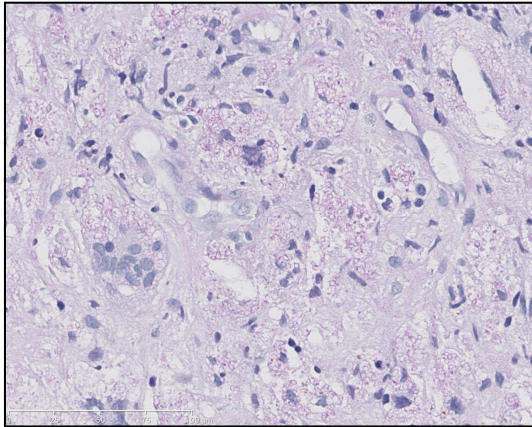


Fig. 1 Microscopy of *Histoplasma capsulatum* var. *histoplasma*.  
a Ovoid yeasts of small size (5 μ) in a valve section (PAS), characteristic of *Histoplasma capsulatum* var. *histoplasma*.



b Microscopic morphology of the mycelial form of *H. capsulatum*. Typical round, thick-walled and spiculate macroconidia are observed. (Malt media, lactophenol blue, ×40)



Rhumatisme chronique, biopsie synoviale (2010)  
Deux perfusion de Rémicade (2009, arrêt kaposi cutané)

## *H. capsulatum*, traitement

- **Infection primaire**
  - Abstention
  - Itraconazole 200 mg x 3/j puis 200 mg x 2/j pdt 6-12 s
    - Dosage sérique à J14
  - AmphoB liposomale IV 3-5 mg/kg/j pdt 1-2 semaines puis itra pdt 10 s
- **Formes disséminées**
  - Légère à modérée
    - Itraconazole pdt 12 mois
  - Modérément sévère à sévère
    - AmphoB liposomale puis itra pdt 12 mois

Wheat et al. 2007. Clin Infect Dis

