ile distilled water and stirred. Following, 1 mL of supernatant was inoculated into petri dishes containing Sabouraud dextrose agar then incubated at 25 °C for five days. The grown fungi were identified by standard mycological techniques based macroscopic and microscopic morphology.

Results: A total of 132 peanut (n = 81) and pistachio (n = 51) samples, fungi were detected in almost 72% of the samples. The *Aspergillus flavus* was the most predominant isolate from peanut (19%) and pistachio (22%) samples. There was a significant relationship between *A. flavus* contaminations in the peanuts and pistachio with high humidity.

Conclusion: Because of the isolation of high percentage of *A. flavus* as the main aflatoxins producer in nature we recommend also the need of good storage practices in order to prevent the occurrence of aflatoxins in peanuts and pistachio.

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In vitro biofilm (BF) formation of *Candida* albicans (CA) planktonic isolates from urogenital tract (UGT) susceptible (S) and multiresistant (MR) to azoles

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Background: *Candida* spp are BF producers and are frequently observed in medical devices as in gastrointestinal and urogenital normal flora. There are many reports about an altered phenotype in BF with respect to growth rate, gene transcription and resistance increase, but few reports about BF behavior of susceptible and resistant planktonic isolates from UGT when the BF is fully developed as normal flora or in pathological situations.

Aim: to study S and MR planktonic isolates of CA from UGT and evaluate their behavior in BF.

Methods: The CA susceptibility to azoles was performed by CLSI rules. We used 20 CA S: fluconazol (FCZ) MIC $\leq 2\mu g/ml$; itraconazole (ITZ) <1 μg/ml; voriconazole (VCZ) $\leq 0.125\ \mu g/ml$, and 5 CA MR. We studied 1 CAMR isolate from catheter (FCZ >256 μg/ml; ITZ >32 μg/ml; VCZ >32 μg/ml) as control. All isolates were incubated 24–48 hours in Sabouraud broth (SB). The CA BF of each isolate was investigated using: a glass coupon (GC); a GC with vaginal layer (previously described) and acetate film. Each of them was placed in the SB and then we read by optical microscopy after 24 and 48 hours of incubation. We used microtiter assay (MA) for studying quantitatively BF formation. Following 24 hours and remotion of planktonic CA, the crystal violet tinction was employed. A RT-2100Cmicroprocessor (absorbance mode λ 450 nm) was employed for reading.

Results: BF was detected in all isolates but the exopolisacharide (EPS) formation, thick and density in some CAS were deficient. Usually BF with blastospores, pseudohyphae, hyphae and EPS was present in CAMR.

Conclusion: The previous susceptibility of CA is important in the BF formation. The MR is a risk factor to eradicate CA from host

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Phenotypic variation in parasite genus Coccidioides

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Background: *Coccidioides immitis* and *C. posadasii* are the causative agents of coccidioidomycosis. The border between Mexico and the United States is the main endemic area for this mycosis. Phylogenetic analyzes showed genetic differences between these two species. The "Great Imitator" as it is called this fungal infection by a great variety of clinical pictures similar to other respiratory diseases, requires a good laboratory diagnosis. *Coccidioides* is considered a dimorphic fungus, however various parasitic morphologies have been reported, and making diagnosis more difficult. The spherule containing endospores is the typical parasitic form, which is diagnostic. However mycelial forms have also been observed in patient's tissue. Both structures exhibit phenotypic changes, which can confuse the identification of the fungus. In order not to delay diagnosis or misdiagnose, is necessary to know the morphological diversity of *Coccidioides*. Objective: To identify and describe the different morphologies of *Coccidioides*.

Methods: The study comprises 44 patients with chronic lung diseases referred to the National Institute of Respiratory Diseases (INER), Mexico (1991-2005). We analyzed clinical manifestations, evolution, imaging and underlying diseases. The diagnosis of coccidioidomycosis was made by culture and in some patients also immunoserology, intradermalreaction, histopathology and cytology. The pathological specimens from the respiratory tract were examined under a microscope. Direct examination with 15% KOH. Grocott staining, periodic acid-Schiff, hematoxylin-eosin and Papanicolaou, were used.

Results: 25 of 44 products tested contained the following mycelial forms: Septate polymorphic mycelium, Pleomorphic hyphae, ovoid and barrel shaped arthroconidia. Thin hyphae forming spherical and oval cell chains, cells chains like a rosary. Germination and filamentation of spherules with and without endospores and spores. In other products we observed: spherules with and without endospores, spherules with an apparent budding and spherules of variable size among other morphologies.

Conclusion: When inhaled by a susceptible host the arthroconidia of *Coccidioides* there is a transition phase from vegetative to parasitic, with various morphologies being presented. Given these observations we could consider this fungus as polymorphic. We believe that the microenvironment generated in the host by the presence of the parasite allows the development of different fungic forms.

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