

COX-2 inhibitors Lumiracoxib and Celecoxib, because these anti-inflammatory drugs increase the expression of collagens types III and IV.

**Methods:** We evaluated *in situ* the presence of some granuloma components such as collagen as well as of its degradation product hydroxyproline. We also determined the local presence of relevant cytokines to granuloma formation and maintenance (TNF- $\alpha$ , TGB- $\beta$ ,  $\gamma$ -IFN, GM-CSF and IL-12) and also of NO, Pb with preserved or altered morphology and the overall architecture of the granulomas.

**Results:** The best indicators of control of PCM as expressed by successful local Pb lysis were the presence of compact granulomas, delimited by a continuous deposit of collagen type 1 arranged in concentric orientation required to contain the fungi, and the production of high concentration of cytokines IL-12 and  $\gamma$ -IFN as well as of NO. The concentration of collagen metabolite *per se* was not an indicator of Pb containment or dissemination.

**Conclusion:** Based on these parameters, we can conclude that therapy with  $\gamma$ -IFN and /or Tetracycline seems promising, reducing the fungal load, increasing the production of NO and of the stimulatory cytokines  $\gamma$ -IFN and IL-12, decreasing that of the inhibitory cytokine TGB- $\beta$  and altering the granulomas architecture towards a compact structure in order to provide Pb containment without excessive fibrosis.

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### 30.016

#### Cost-effectiveness analysis of the therapy for the invasive Candidiasis in Colombia

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**Background:** Candidiasis is a nosocomial infection associated to considerable mortality and high economic impact. The echinocandins are a new class of therapeutic medications that have shown to be effective in treating candidemia and other forms of invasive candidiasis; however, cost of amphotericin B dose is lower. Hypothesis: Is anidulafungin (ANI) cost-effective compared to caspofungin (CAS), and amphotericin B (AMB) in the treatment of invasive candidiasis in non-neutropenic patients hospitalized in Intensive Care Units (ICU) when the fluconazole is not a choice, from a third-party payer perspective.

**Methods:** A decision tree was designed to assess the cost-effectiveness of the three medications and this was validated by 2 critical care specialists and 2 infectologist. The model simulated costs and effectiveness in a 14-week-period. Effectiveness measure was the rate of survival and the main outcome was saved Life Years (LYs). Clinical efficacy and node probabilities were obtained from a published meta-analysis that was identified by systematic literature review. This study estimated the direct costs associated with invasive candidiasis treatment including antifungal drugs,

hospitalization, and costs associated with adverse events. Medical costs were extracted from 7 ICUs of 3 major cities and drug costs were taken from a standard colombian costing source. The incremental cost per successfully treated patient was calculated and the one way sensitivity analysis was performed.

**Results:** Patients treated with ANI experienced the higher outcomes (13.7 LYs) followed by AMB (12.1 LYs) and CAS (11.7 LYs). Mean cost per patient was lower with AMB (US\$4,131) followed by ANI (US\$6,001) and CAS (US\$6,444). Based on ICERs, ANI was the dominant therapy compared to CAS and ANI was cost-effective compared to AMB (ICER US\$1.228).

**Conclusion:** Anidulafungin represents the cost-effective treatment of choice when compared to caspofungin and amphotericin B for the invasive candidiasis in Non-neutropenic patients in Colombia.

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### 30.017

#### Myocardial infarction caused by aspergillus embolization in a patient with cirrhosis

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**Background:** Patient presented with ST elevation MI and died secondary to multiorgan failure. Autopsy revealed angioinvasive aspergillosis involving several organs.

**Methods:** Case: A 47-year-old African American male with past medical history of alcohol-induced cirrhosis presented with acute midsternal pain of 5 hours duration. Respiratory distress developed and mechanical ventilation was required for airways protection.

**Results:** Initial work up showed markedly elevated cardiac enzymes with CPK 14000 U/L, elevated AST 800 U/L, ALT 210 U/L, total bilirubin 8mg/dL, direct bilirubin 7mg/dL, and ST segment elevation on inferior EKG leads. Patient underwent emergent left heart catheterization which revealed patent coronary arteries. Subsequently multiorgan failure resulted in decompensated shock and patient received several vasopressors. Blood, spinal fluid, urine and sputum cultures showed no growth. Patient had negative serology for HIV, acute viral hepatitis, syphilis, dengue fever, tularemia, herpes virus 1&2, CMV, EBV, leptospirosis, Q fever, Lyme disease, brucellosis, and ehrlichiosis. Patient experienced intractable ventricular fibrillation which resulted in death after a 13-day hospital stay. Autopsy report confirmed disseminated angioinvasive aspergillosis involving heart, lungs, bowel, thyroid, kidneys and spleen in addition to complete occlusion of the posterior descending artery with a fungal thrombus and multiple fungal vegetations.

**Conclusion:** Discussion: Aspergillus organisms are ubiquitous and exposure to their conidia must be a frequent event. However, disease due to tissue invasion is uncommon and occurs primarily in the setting of immunosuppression. Risk factors for invasive aspergillosis include prolonged and severe neutropenia, organ transplantation, AIDS and corticosteroid use.