



CLINICAL INFECTIOUS DISEASES SOCIETY

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Editor's note

Dear CIDS members

Preparations for CIDSCON are in full swing. Please encourage your juniors and colleagues to send in abstracts before the deadline of June 1. Almost an entire day is allotted to antimicrobial resistance and stewardship, an issue in which our society has played a prominent part since the Chennai declaration resulted from the proceedings of a pre-conference workshop of CIDSCON 2012 in Chennai. A follow up meeting of the Chennai declaration stake-holders is planned.

Sincerely

Ram Gopalakrishnan

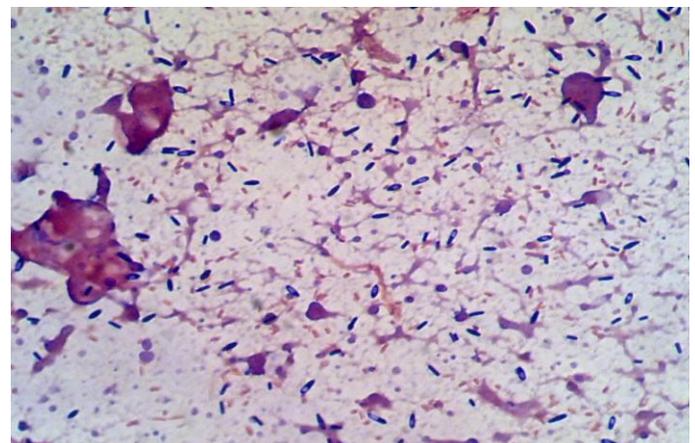
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5th ANNUAL CONFERENCE OF THE CLINICAL INFECTIOUS DISEASES SOCIETY

Photo quiz

A 15 year old female presented with fever, abdominal pain, 3 months amenorrhea and diarrhea and progressed to refractory septic shock despite multiple antibiotics. Labs showed polymorphonuclear leucocytosis (21,000). CT abdomen and Gram stain of vaginal discharge are shown.

What is the diagnosis?



News from the ID world

India makes good progress in combating kala-azar

Lancet 2015;385:1716

India has 50% of the world's cases of visceral leishmaniasis and 70% of those are in Bihar. Patients are usually very poor and live in huts made from mud, the floors are earthen and people sleep on the floor in close proximity to their livestock: such conditions are ideal for sandflies to breed. India aims to eliminate it by the end of 2015, as defined by having less than one case per 10 000 people at a district level. The introduction of a single-dose of liposomal amphotericin B (AmBisome; Gilead Sciences), which only requires one intravenous infusion taking 2 hours

has made treating the disease substantially easier. WHO, through an agreement with Gilead Sciences, has committed to provide supplies to cover the predicted caseloads until the end of 2016. The single-dose treatment is available across 28 districts in Bihar at the district hospital level.

Despite the substantial progress that has been made on elimination—in 2011 there were 25 222 cases of visceral leishmaniasis and 76 deaths in Bihar compared with 7615 cases in 2014 and ten deaths, co-infection with HIV is a growing concern and so too is post-kala-azar dermal leishmaniasis.

Whats new and going around

Injecting drug use and HCV burden in India

Lancet Inf Dis 2015;15:36-45

14481 people who inject drugs were sampled from 15 cities throughout India using respondent-driven sampling. Weighted HCV prevalence was 5777 (37.2%) of 14 447; HIV/HCV co-infection prevalence was 2085 (13.2%) of 14 435. In the 5777 people who were HCV antibody positive, 2086 (34.4%) reported harmful or hazardous alcohol use, of whom 1082 (50.4%) were dependent, and 3821 (65.3%) reported needle sharing.

States such as Punjab and Manipur have large epidemics of HIV and HCV fuelled by injecting drug use.

African histoplasmosis indigenously acquired in India: a case report

Int J Dermatol 2015; 54:451–5.

A 59-year-old farmer from Idukki, Kerala presented with asymptomatic, generalized, reddish skin lesions of five months in duration. Dermatologic examination revealed multiple erythematous papules and plaques of varying sizes, predominantly over the trunk and upper limbs. Histopathologic examination revealed epithelioid and suppurative granulomas in the upper dermis, with lymphocytes, neutrophils, and plenty of giant cells. Fite–Faraco staining for *Mycobacterium leprae* was negative. Fungus cultured from the specimen was identified as *H. capsulatum* var. *duboisii*, the rarer variant of *H. capsulatum*. The patient was treated with ketoconazole 200 mg/day for four months and attained complete clearance.

Snippets from the literature

Costs and Consequences of Using Interferon- γ Release Assays for the Diagnosis of Active Tuberculosis in India

(provided by Dr Madhukar Pai)

<http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0124525>

Relative to sputum smear microscopy, use of IGRA for active TB resulted in 23,700 additional true-positive diagnoses, but at the expense of 315,700 additional false-positive diagnoses and an incremental cost of 2.9 billion Indian Rupees. Relative to Xpert MTB/RIF, use of IGRA led to 400 additional TB cases treated, 370,600 more false-positive diagnoses, 70,400 fewer disability-adjusted life years averted, and 854 million Indian Rupees in additional costs.

Using IGRAs for diagnosis of active TB in a setting like India results in tremendous overtreatment of people without TB, and substantial incremental cost with little gain in health. These results support the policies by WHO and Standards for TB Care in India, which discourage the use of IGRAs for the diagnosis of active TB in India and similar settings.

Pretreatment HIV Drug Resistance and HIV-1 Subtype C Are Independently Associated With Virologic Failure: Results from the Multinational PEARLS (ACTG A5175) Clinical Trial

Clin Infect Dis 2015 60: 1541-1549

This case-cohort study including 270 randomly sampled participants (subcohort), and 218 additional participants failing ART (case group) was carried out in 9 different countries located on 4 different continents, and included several Indian patients. Baseline resistance occurred in 7.1% (9.4% with failure, 4.3% without). Baseline resistance was significantly associated with shorter time to virologic failure (hazard ratio [HR], 2.03; $P = .035$). The authors conclude that pretreatment genotyping should be considered whenever feasible.

Compared with subtype B, subtype C infection was associated with higher failure risk (HR, 1.57; 95% confidence interval [CI], 1.04–2.35). Subtype C viruses cause >50% of all new HIV infections worldwide. Subtype C may be more prone to development of the K65R mutation in reverse transcriptase that can cause cross-resistance among each of TDF and ddI, and to V106M that causes higher levels of resistance to EFV than does the V106A mutation that is more commonly observed in subtype B viruses.

Post-artesunate delayed hemolysis is a predictable event related to the lifesaving effect of artemisinins.

Blood 2014; 124:167–75.

Among a cohort of 60 returned French travelers who had received artesunate for severe malaria, 13 of the 60 (22%) had delayed hemolysis occurring not during treatment but rather 1–3 weeks later.

We need to watch for this adverse effect as artesunate is widely used as first line therapy for severe malaria in India. Artesunate rapidly kills the parasites while allowing the survival of the red blood cells they had infected. In this process, known as pitting, ring forms are disgorged from the erythrocyte during its transit through the spleen. The erythrocyte then reseals its cell membrane, avoiding immediate lysis but, nonetheless, has a reduced lifespan, having only delayed its clearance. These previously infected erythrocytes with repaired cell membranes generally have a further lifespan of just 1–3 weeks.

Carbapenem Therapy Is Associated With Improved Survival Compared With Piperacillin-Tazobactam for Patients With Extended-Spectrum β -Lactamase Bacteremia

Clin Infect Dis 2015 60: 1319-1325

In this study, 331 unique patients with ESBL

bacteremia were identified of whom 103(48%) patients received PTZ empirically and 110 (52%) received carbapenems empirically. The primary exposure was empiric therapy, defined as antibiotic therapy administered to a patient before ESBL status was known. The adjusted risk of death was 1.92 times higher for patients receiving empiric PTZ compared with empiric carbapenem therapy. ESBL bacteremias are common in India and this study gives us additional information on how to treat them.

Azithromycin looks good for typhoid

(courtesy Dr Vinay D)

Antimicrob. Agents Chemotherapy,
May 2015 ; 59:5 2756-2764

Azithromycin is an effective treatment for uncomplicated infections with *Salmonella enter-*

-ica serovar Typhi and serovar Paratyphi A (enteric fever), but there are no clinically validated MIC and disk zone size interpretative guidelines. We studied individual patient data from three randomized controlled trials (RCTs) of antimicrobial treatment in enteric fever in Vietnam, with azithromycin used in one treatment arm. Treatment was successful in 195 of 214 (91%) patients, with no significant difference in response (cure rate, fever clearance time) with MICs ranging from 4 to 16 µg/ml. An azithromycin MIC of ≤16 µg/ml or disk inhibition zone size of ≥13 mm enabled the detection of susceptible *S. Typhi* isolates that respond to azithromycin treatment. This study reassures clinicians using empiric azithromycin for typhoid and gives microbiologists some criteria for testing.

Guideline watch

WHO post exposure guidelines for HIV published

http://www.who.int/hiv/pub/guidelines/arv2013/arvs2013supplement_dec2014/en/.

Both occupational and nonoccupational exposures are considered in the same document. The guideline recommends that a PEP regimen be administered as soon as possible within the 72-hour window period after an HIV-related exposure and that whereas a 2-drug antiretroviral regimen is acceptable, a 3-drug regimen is preferred. The recommended regimen is a tenofovir and lamivudine (or emtricitabine) (TDF+3TC (or FTC)) backbone with lopinavir/ritonavir (LPV/r) or atazanavir/ritonavir (ATV/r) as the third drug. The alternatives for the third drug, where available, are raltegravir (RAL), darunavir/ritonavir (DRV/r), and EFV.

Upcoming conferences and meetings



Answer to photo quiz

CT scan shows air pockets within the pelvis and Gram positive bacilli consistent with Clostridium species. A diagnosis of Clostridial sepsis, possibly complicating a septic abortion, was made but she expired soon after the gram stain was done despite antibiotics and supportive care. Clostridium species (especially *C sordellii*) are known to cause post abortion and post partum sepsis that starts as localised chorio-amnionitis, spreads to the uterine wall and endometrial tissues. Gaseous vaginal discharge may be present. Surgical debridement is essential for cure.

Diagnosis: Clostridial sepsis (? *C.sordellii*)

(courtesy Dr Senthur Nambi)