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CIDS Newsletter

October 2014

CLINICAL INFECTIOUS DISEASES SOCIETY

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Design & format:
Dr Laxman G. Jessani

Editor's note

Dear CIDS members

We hope that the excellent conduct of CIDSCON 2014 will encourage many to join our society. We have several new members in the last two months, and to further encourage membership applications, we have reduced the membership fees to Rs 1000 (annual) and Rs 10,000 (life). We will shortly be updating the website and posting older issues of the newsletter for open access on the website.

We also encourage you to send in ideas for sessions and lectures for CIDSCON 2015. You can send in suggestions to me (gopalmeena_2000@yahoo.com), the organizing secretary Dr Vivek Nangia (viveknangia@gmail.com) or to the CIDS office (secretary@cidsindia.org).

Once again a request to all our members: whenever you see any news item or literature relevant to Infectious Disease clinicians, please send me a mail with the reference! All contributions will be acknowledged. I also welcome any interesting cases or photos you see for the photo quiz section of the newsletter.

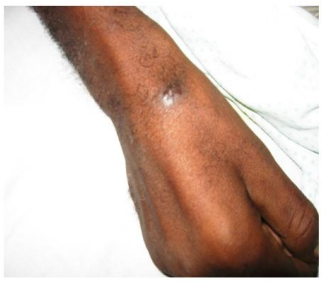
Sincerely

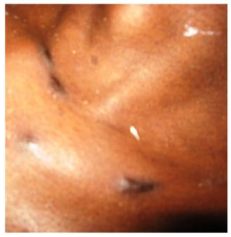
Dr Ram Gopalakrishnan

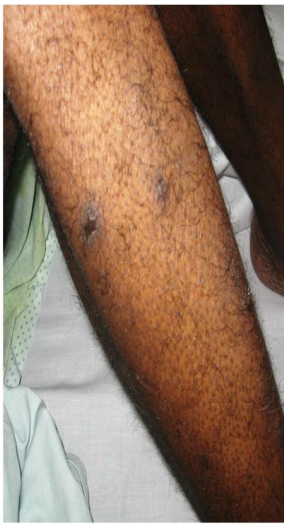
Photo Quiz

A 61 year old HIV positive male from Nigeria with a CD4 count of 70 presented with skin lesions and dysphagia of 1 month duration. Skin lesions and endoscopic findings are shown.

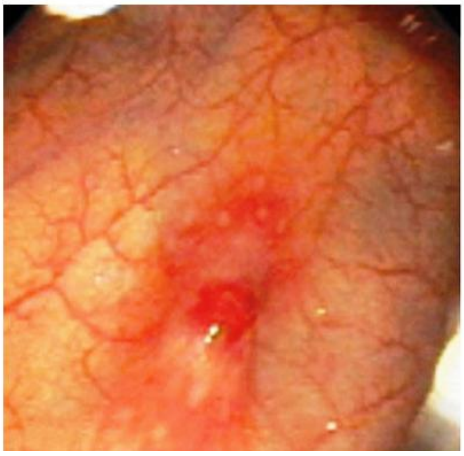
What is your diagnosis?







UGI scopy showing nodular lesion



New Members

Dr. P Senthur Nambi	Chennai
Dr. Gagandeep Kang	Vellore
Dr. Barigala Ravikiran	Hyderabad
Dr. Justy Antony Chiramal	Bangalore
Dr. Suraj S Nambiar	Kanjangad
Dr. Shubhanker Mitra	Vellore
Dr. H Manjunatha Hande	Manipal
Dr. S. Ravindranath	Bangalore
Dr. Lakshmi Kiranmayi	Guntur

Dr. MSRL Deepika	Guntur
Dr. Patel Bharati I	Ahmedabad
Dr. Gifty Immanuel	Bangalore
Dr. Sagar Khadanga	Bhopal
Dr. T. Karuna	Bhopal
Dr. Animesh Arya	New Delhi
Dr. Raman Gaikwad	Pune
Dr. Manoj kumar Chalamalasetty	Andhra Pradesh

News from the ID world

Who wants to be a millionaire????

(courtesy Dr Abdul Ghafur)

http://www.longitudeprize.org/

"…nothing is so much wanted and desired at sea, as the discovery of the longitude, for the safety and quickness of voyages, the preservation of ships, and the lives of men…"

This was the issue 300 years ago when the first Longitude prize was announced but now the genie is out of the bottle... it will happen again... the only question is when and where. The ever increasing threat of antibiotic resistance needs a solution: the Longitude Prize 2014 is a challenge with a £10 million prize fund to help solve one of the greatest issues of our time: rising antibiotic resistance!

The challenge set for the Longitude Prize is to create a cost-effective, accurate, rapid and easy-to-use test for bacterial infections that will allow health professionals worldwide to administer the right antibiotics at the right time: it was launched by the British Prime Minister at G8 summit last year.

White House Unveils Plan to Battle Antibiotic Resistance

(courtesy Dr Laxman Jessani)

N Engl J Med 2014; October 1

The Obama administration has unveiled a complicated game plan to battle antibiotic resistance, as well as a $20 million contest to develop a rapid point-of-care diagnostic test to identify superbugs. President Barack Obama has also established by executive order an interagency task force charged with developing a 5-year "national action plan" by February 15, 2015, to implement the national strategy. The plan will propose implementation of antibiotic stewardship in health care facilities and the community; development of rapid, point-of-care diagnostics; recruitment of academic and industry partners to increase the pipeline of antibiotics, vaccines, and alternative approaches; and international collaboration for prevention, surveillance, and control of antibiotic resistance.

These actions preceded the US visit by Prime Minister Narendra Modi and are most welcome as India is most affected by the issue of resistant Gram negative bacteria. One hopes the Indian government takes its own small steps along similar lines to combat antimicrobial resistance.

HIV case definitions updated by US CDC

MMWR 2014 Apr 11;63:1

The following are now acceptable for a diagnosis of HIV infection in adults and children > 18 months:

- HIV Ag-Ab test followed by a Ab test
- Ab test followed by viral load assay
- Rapid Ab test followed by a Ab test
- Single non-antibody test (P24, viral load, genotype, viral culture)

The Western Blot is no longer required (RIP to this venerable test which we all grew up on!)
There is also a "Stage 0" to designate patients who are in very early stages of infection, when standard markers are converting from negative to positive eg an indeterminate or negative test followed by a positive test within 6 months.

Newer antiretrovirals now available for mix and match

The U.S. Food and Drug Administration has issued two new approvals:

- elvitegravir, an HIV-1 integrase strand inhibitor, coadministered with ritonavir and with other antiretroviral drugs for treatment of HIV-1 in treatment-experienced adults;

- cobicistat, a CYP3A inhibitor indicated to increase systemic exposure of atazanavir or darunavir in combination with other antiretroviral agents in treatment of HIV-1 infection.

These drugs have so far been available as a co-formulated pill with tenofovir-emtricitabine. This should increase options for anti-retroviral experienced patients.

BMJ Award- Medical team of the year 2014

Congratulations to CIDS member Dr Vasant Nagvekar, whose hospital Fortis Mulund, Mumbai got the 2014 BMJ Award for the project on "Antibiotic Review Process - Restriction Antibiotic Policy". Dr Nagvekar was involved in setting up an AMS Core team for this project consisting of ID Physician, Microbiologist, two Intensivists and Infection control nurses. To begin with colistin, meropenem, imipenem and doripenem were in the restricted list. Consultants were allowed to use these if needed upfront but within 24–48 hours had to fill the justification form with additional details of the patient and the indication of its use. After going through the forms, clinical, microbiological and radiological information is taken into consideration and a dialogue with the consultants to eitherstop, escalate or de-escalate is initiated.

Dr Nagvekar says that initial opponents of the program actually became supportive proponents, thus creating a ripple effect across the hospital. He can be contacted on drnagvekar@gmail.com for details by those wishing to set up similar antimicrobial stewardship programs at their hospitals.

Snippets from the literature

Treatment outcomes of childhood tuberculous meningitis: a systematic review and meta-analysis

Lancet Infect Dis 2014. published online August 7

This meta-analysis of 1636 children with TB meningitis highlights difficulty in diagnosis, poor treatment outcomes and need for better prevention. Risk of death was 19·3% and risk of neurological sequelae was 53·9%. Diagnosis in the most advanced disease stage (3) occurred in 47%. The most common findings at presentation were CSF leucocytosis (99·9%), CSF lymphocytosis (97·9%), fever (89·8%) and hydrocephalus (86·1%). Frequency of CSF acid-fast-bacilli smear positivity was 8·9% and frequency of CSF culture positivity for *Mycobacterium tuberculosis* was 35·1%.

WHO has recommended using Xpert Mtb Rif as a diagnostic test in all patients with suspected TB meningitis. High dose moxifloxacin and intravenous rifampicin are also promising modalities in treatment, and need further study.

Four-Month Moxifloxacin Regimens Less Effective for TB Treatment

N Engl J Med 2014 Sep 7

Researchers compared the standard 6-month regimen (8 weeks of ethambutol/isoniazid/rifampin/ pyrazinamide, followed by 18 weeks of isoniazid/rifampin) with two 4-month moxifloxacin-based regimens — one isoniazid-based (8 weeks of moxifloxacin/isoniazid/rifampin/pyrazinamide followed by 9 weeks of moxifloxacin/isoniazid/rifampin and 9 weeks of placebo) and the other ethambutol-based (8 weeks of moxifloxacin/ethambutol/rifampin/pyrazinamide followed by 9 weeks of moxifloxacin/rifampin and 9 weeks of placebo).

Conversion to culture-negative status occurred more quickly with the moxifloxacin regimens than with the standard one. However, per-protocol analysis showed that both moxifloxacin regimens were inferior to the standard regimen: favorable outcome rates were 85% with isoniazid-based moxifloxacin, 80% with ethambutol-based moxifloxacin, and 92% with the standard regimen. The most common reason for an unfavorable outcome was relapse after conversion to culture-negative status.

It appears moxifloxacin and other quinolones will remain as drugs to be used for MDR-TB, in situations where first line drugs are not tolerated and perhaps for TB meningitis (more data needed).

Artemisinin resistance in uncomplicated P.faciparum in SE Asia emerging and chloroquine resistance in P.vivax: is a new drug the answer?

(courtesy Dr Sheela Nagusah)

N Engl J Med 2014;371: 403-410 and 411-423
The Lancet Infectious Diseases, Volume 14, Issue 10, Pages 982 - 991, October 2014

A paper describes slow but eventual parasite clearance (clearance half life > 5 hours) in Eastern Thailand and Western Cambodia, but not in the site in India included in the study. Investigators used a 6 day course of therapy as opposed to the usual 3 day course, and also validated the new molecular marker of artemsinin resistance (a mutation in the 'propeller' domain of the kelch protein gene on chromosome 13).

A meta-analysis showed that chloroquine resistance was present in 58 (53%) of 113 assessable study sites, spread across most countries that are endemic for *P vivax*. Clearance of parasitaemia assessed by microscopy in 95% of patients by day 2, or all patients by day 3, was 100% predictive of chloroquine sensitivity. The epicentre for chloroquine-resistant *P vivax* is the island of New Guinea, where studies have consistently shown high-grade resistance manifested by early clinical deterioration requiring hospitalisation, by delayed parasite clearance, and by early recurrent parasitaemia By contrast, the reports from the Indian subcontinent (India, Afghanistan, and Pakistan) are mostly reassuring. Several reports have suggested either low-grade chloroquine resistance or sporadic reports of early treatment

failure; however, these reports have usually not been substantiated on further investigation

A new spiroindolone drug KAE609, effective against both sexual and asexual stage parasites, showed rapid parasite clearance in both P.vivax and P.falciparum (even among those with the kelch protein mutation) in a small phase 2 study.

INICC data on CLABSI and VAP in Indian ICUs shows falling rates after interventions

Int J Infect Dis. 2013 Dec;17(12):e1218-24.
Epidemiol Infect 2013 Dec 141 (12):2483-91

The International Nosocomial Infection Control Consortium (INICC) collates data from participating centers from India. This was a prospective, before-and-after cohort study of 35650 patients hospitalized in 16 adult intensive care units of 11 hospitals. During the intervention, the INICC approach was implemented, which included a bundle of interventions, education, outcome surveillance, process surveillance, feedback on CLABSI rates and consequences, and performance feedback. The baseline rate was 6.4 CLABSIs per 1000 CL-days, which was reduced to 3.9 CLABSIs per 1000 CL-days in the second year and maintained for 36 months of follow-up, accounting for a 53% CLABSI rate reduction (incidence rate ratio 0.47, 95% confidence interval 0.31-0.70; p=0.0001). The authors concluded that implementing the six components of the INICC approach simultaneously was associated with a significant reduction in the CLABSI rate in India, which remained stable during 36 months of follow-up.

Another study by the same group demonstrated that VAP rates fell from 17.43 per 1000 mechanical ventilator days to 10.81 after intervention, a 38% reduction.

COSMOS study revolutionizes the current treatment of genotype 1 HCV

Lancet 28 July 2014

This trial looked at response rates of genotype 1 hepatitis C, among those who had previously failed interferon-ribavirin regimens, to simeprevir plus sofosbuvir with or without ribavirin given for as short a period as 12 weeks. Response rates were as high as 92% even without ribavirin and adverse effects were few, amazing for a short course regimen without either interferon or ribavirin, in this difficult to treat population.

Both simeprevir and sofosbuvir are approved and marketed in the USA for hepatitis C. The cost of this regimen, up to $1800 per day is the main deterrent to widespread use. Hopefully these newer agents will become available in resource limited countries for much less through tie-ups with governments.

Guideline watch

Prevention of catheter associated urinary tract infections (SHEA, IDSA)

Infect Cont Hosp Epidemiol 2014; May 35: 464

Upcoming conferences and meetings

38th National Conference of the Indian Association of Medical Microbiologists (MICROCON 2014)

15th - 19th October 2014 at Birla Auditorium Jaipur, Rajasthan, India.
http://www.microcon2014.com

Transplant Infectious Disease Conference
6-8 November, Vellore
Contact Dr Priscilla Rupali (prisci@cmcvellore.ac.in)

7th World Workshop on Oral Health and Disease in AIDS.
6-9, Nov 2014, Hyderabad
info@ww7india.com, ww7india@gmail.com

3rd Biennial Conference of HIV Medicine Association of India (HIVMAI)
8th-9th November 2014, India International Centre, New Delhi
http://hivmai.org/hivmai/node/4052

First Conference of Fungal Infection Study Forum (FISF) and Mycology Master Class
Kolkata 14-16 Nov 2014
http://www.fisftrust.com

Antimicrobial Stewardship Course, New Delhi, (endorsed by CIDS) Nov 27-28th
Pre-conference workshop of IAMM Delhi chapter annual conference in November, conducted by BSAC (British Society of Antimicrobial Chemotherapy) GARP and Delhi Chapter of Indian Association of Medical Microbiology

CIDS Annual Postgraduate Course in Infectious Disease
11-13 December, CMC, Vellore.
Contact Dr George M Varghese
(secretary@cidsindia.org)

Position vacant

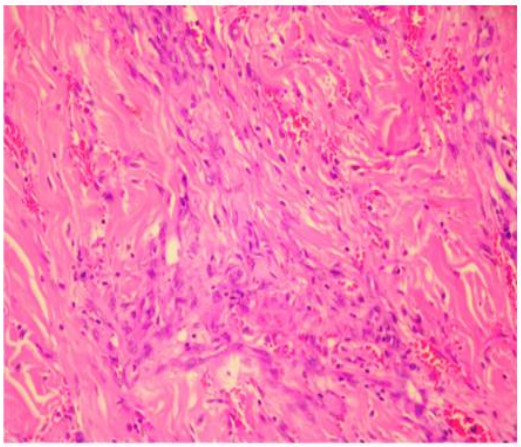
Tenet Infection Prevention and Hospital Epidemiology Fellowship

Contact: Dr PH Chandrasekar pchandrasekar@med.wayne.edu

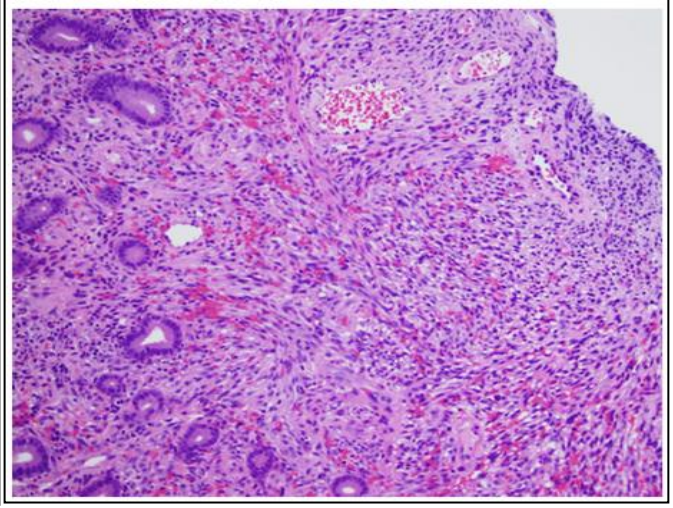
Duration: One year
Location: Detroit Medical Center (DMC)/Wayne State University
Director: Keith S. Kaye, MD, MPH
Objectives:
a) Train an Infectious Diseases Fellow in Infection Prevention leadership from both a health system as well as an individual hospital perspective.
b) Provide support to Dr. Kaye, to allow greater focus on Tenet Systemwide Infection Prevention and Antimicrobial Stewardship initiatives.

Answer to photo quiz

Skin biopsy shows spindle cell proliferation with extravasated RBCs



Duodenal HPE



Diagnosis: **Kaposi's sarcoma** caused by human herpesvirus-6, is a classic AIDS defining disease. The virus is common in African populations and comparatively rare in India. Histopathology is characteristic, and is supported by immuno-histochemical staining. Disseminated disease needs treatment with anti-retroviral therapy and doxorubicin based chemotherapy.