Volume 4, Issue 7

CIDS Newsletter

July 2017

Editor's note

Dear CIDS members

See you at Nagpur where an excellent academic program awaits us.

Please plan on attending the general body meeting on the evening of August 19th. If you have concerns or question to be discussed at the GBM, please write to any of the office bearers to list the item for discussion.

Sincerely

Ram Gopalakrishnan

Photo quiz

A 50-year old gentleman from Nainital without any co-morbidities presented (elsewhere) with low-grade fever, weight loss, rectal ulcer (Figure 1). Biopsy of the rectal ulcer revealed caseating granulomas. CT abdomen revealed adrenal masses. He was started on empirical anti-TB drugs. However, there was no improvement & a year later, patient underwent colostomy (Figure 2).
Later, the patient was referred for ID opinion by the endocrinologist.

A repeat CT showed bilateral diffusely enlarged adrenal glands with lobulated contours with complete occlusion of aorta in infrarenal portion upto bifurcation (Figure 3)
USG guided FNAC of the adrenal gland was done.

What is your diagnosis?

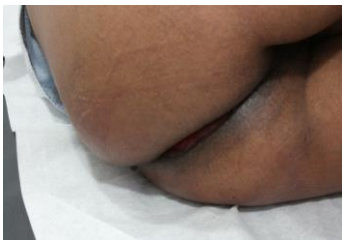


Figure 1: Perianal & rectal ulcer

Figure 2: Colostomy done due to persistent rectal ulcer

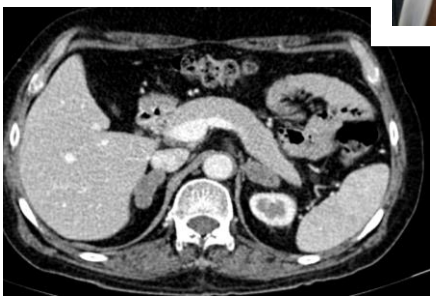


Figure 3: Bilateral adrenal masses with aorta involvement

News from the ID world

WHO updates essential medicines list

To prevent antimicrobial resistance, antibiotics have been divided into 3 categories for the first time:

Access: to be accessible at all times eg amoxicillin

Watch: use to be dramatically reduced, eg ciprofloxacin

Reserve: should be considered last reserve antibiotics eg colistin, carbapenems.

Other changes include:

- sofosbuvir + velpatasvir as the first combination therapy to treat all six types of hepatitis C (WHO is currently updating its treatment recommendations for hepatitis C);
- dolutegravir for treatment of HIV infection, in response to the most recent evidence showing the medicine's safety, efficacy, and high barrier to resistance;
- pre-exposure prophylaxis (PrEP) with tenofovir alone, or in combination with emtricitabine or lamivudine, to prevent HIV infection;
- delamanid for the treatment of children and adolescents with multidrug-resistant tuberculosis (MDR-TB) and clofazimine for children and adults with MDR-TB;
- child-friendly fixed-dose combination formulations of isoniazid, rifampicin, ethambutol and pyrazinamide for treating paediatric tuberculosis.

Flucloxacillin now available in India

As both nafcillin and oxacillin are not available in India, cloxacillin was the only parenteral anti-Staphylococcal semi-synthetic penicillin available in India till recently and was subject to frequent stockouts.

Flucloxacillin is now marketed in India in vials of 500 mg and 1g, and is an option for severe Staphylococcal infections. The dosage mentioned on the package insert is 250mg -1g IV q6h, although perhaps even higher doses are needed for severe infections.

Snippets from the literature

Group B streptococcal colonization among pregnant women in New Delhi, India

(courtesy Dr Vidya Krishna)

This prospective cohort study was carried out to determine the prevalence of GBS colonization and the GBS capsular polysaccharide (CPS) distribution of colonizing isolates from pregnant women in Delhi, India. Women at 28 weeks of gestation or greater were included. Cultures were obtained individually from the lower vagina and rectum using rayon-tipped swabs. CultureSwab Liquid Stuart transport system within 3 hours of collection was used and inoculated into Strep B Carrot Broth incubated for 18–24 hours at 35–37°C. Strep B Carrot Broth samples were sub-cultured onto GBS Detect plates incubated for 18–24 hours at 35–37°C and inspected for growth of beta-hemolytic colonies. Overall prevalence of maternal GBS colonization was 15% (11.2%–19.5%). Three isolates were identified only by GBS Detect plate (Hardy Diagnostics, Santa Maria, CA).

Among colonized women, 15% had vaginal only, 29% had rectal only and 56% had colonization at both sites. Spontaneous abortion after 20 weeks occurred in 15.6% of GBS positive women compared to 3.5 % of negative women (p=0.004). Employing Census of India 2011 data for the annual birth cohort of 26.1 million and estimating that 1% of neonates born to GBS colonized women develop early-onset disease, approximately 39,000 cases of early-onset GBS disease may occur yearly in India.

A systematic review by Kwatra et al estimated an 11.1% prevalence of maternal GBS colonization in South East Asia compared with 22.4 % in Africa and 19.7 % in the Americas. The importance of sampling both lower vaginal and rectal sites to define accurately colonization rates is apparent. Enhanced surveillance for group B Streptococcus as a cause of late-onset disease in India is also needed.

Probiotics prevent C.difficile Infection in Hospitalized Adults

Gastroenterology *2017 Feb 10;*

Despite positive results of prior systematic reviews for the efficacy of probiotics in preventing *Clostridium difficile* infection in hospitalized patients, current guidelines do not recommend their use in this setting.

In a systematic review of probiotic use in hospitalized patients to prevent *C. difficile* infection in patients started on antibiotics, 19 randomized trials were identified, including 3277 patients randomized to probiotic intervention and 2984 to placebo. Results of a meta-analysis of these data were as follows:

Overall, the incidence of *C. difficile* infection was lower in probiotic users than in controls (1.6% vs. 3.9%; pooled relative risk with probiotic use, 0.42).
The protective effect of probiotics was lower if started >2 days after antibiotic initiation versus within 2 days (relative risk, 0.70 vs. 0.32).

Meta-regression showed an 18% decline in benefit for every day of delay in starting probiotics.
There was no increase in adverse effects with probiotics.

There were nonsignificant trends toward better protection with a few specific probiotic formulations, including *Lactobacillus* and *Lactobacillus* in combination with either *Streptococcus* or both *Bifidobacterium* and *Streptococcus*.

Chandra's Corner

Courtesy Dr P H Chandrasekar

Radhika was her name. I like the name so I will call her Radhika. I was consulted to see Radhika hospitalized with neutropenic fever. This 36-year-old Indian American physician had undergone a successful allogenic stem cell transplantation many years ago for acute myelogenous leukemia. I was involved in her care then. At that time, when the lightning bolt had struck her with this devastating illness, she was pursuing residency in Internal Medicine in Detroit; with her illness, medical training came to an abrupt halt. Radhika never gave up hope. After the transplantation, her health gradually returned to some sense of normalcy and then she was able to complete her residency. Subsequently, when she applied for a job, I was involved again. The hospital administrators insisted that she received live MMR vaccine before joining duty, according to the hospital regulations. The hospital said "take the vaccine or no job". Live vaccines are generally contraindicated after stem cell transplantation and I have always stayed away from live vaccine immunizations in such patients. However, two years after the procedure, live vaccines may be an option provided the stem cell recipient is believed to be immune-constituted and no longer on any immunosuppressive therapy. So, this remains a gray zone. Our team was able to convince the hospital to waive the live vaccine requirement, and surprisingly, the hospital agreed. Radhika became gainfully employed.

Now, the dreaded disease has struck back. Her relapsed leukemia was discovered in the form of myeloid sarcoma when she developed abdominal pain. CT revealed intraabdominal masses and biopsy proved the diagnosis. Back to the poisons. Chemotherapy was begun with conventional drugs and under cover of antimicrobial prophylaxis with ciprofloxacin, acyclovir and fluconazole. And despite all my years with cancer patients, I was stunned to learn that the disease had relapsed. Hesitatingly and most reluctantly, praying for the right words to come out of my mouth, I entered her room. Radhika's face lit up as soon as I walked in and she was proud to introduce her eight year old son and husband. What can I say? Life simply has to go on. Radhika had adjusted to the news and was becoming a warrior and not a "worrier". I saw steely determination on Radhika's face. We took care of her fever and sent her home.

As we go through life, unexpected blows are thrown our way, many catching us off guard. Some of these are heavy to stand up and fight back. Certainly Radhika has had more than her share. With her Indian resilience, Radhika forges on with admirable grit. As physicians, we are incredibly blessed with ample opportunities every day to witness our patients' fortitude in the midst of utmost adversities. Our nearsightedness occludes our vision to a very short range. Every single day, there are academic and life lessons to be learned from patients' stories provided we remind ourselves to live in the moment and really look and listen. These opportunities pass us by as we stubbornly remain absorbed in the "search" for diagnosis and therapy. Despite years of practice, I still need more practice and insight to digest and fully enjoy and learn from the events I am confronted with. Medicine is a lot, lot more than diagnosis and medications.

I turn 70 this year. Forty of these years have been spent in the U.S., mostly in the field of clinical infectious diseases. Academics provided me with unparalleled experiences and inspirations. I would not trade my time of schooling in India and career in the US for anything else. Gratefully, involvement in the founding and growth of CIDS has been a highlight of my career. The rewards have been countless in the form of wonderful teachers, friends, trainees, students and above all, amazing patients. I am so thankful I had the good sense to choose ID as my career. Regrets, I have none, zilch.

With "maturity", areas of my body that I didn't know existed remind me of their presence through aches and pains. Keep moving, I tell myself. However, just existing is not enough, not fun. One needs to contribute to have a sense of purpose, sense of satisfaction. So the slogan perhaps may be "keep moving, keep contributing".

Answer to photo quiz

Cytopathology of the specimen suggested histoplasmosis.

Histoplasmosis is an endemic mycosis in northern India which is under-recognized. It can mimic common diseases like TB or malignancy.
Progressive disseminated histoplasmosis (PDH) can have varied presentations including mucocutaneous and gastrointestinal manifestations. Endarteritis is an infrequent manifestation of PDH.

It should be considered in the differential diagnosis of bilateral adrenal masses in immunocompetent patients and granulomatous lesions on histopathology especially if there is no response to ATT.
Increasing use of fungal stains has increased the diagnostic yield and should be routinely performed.

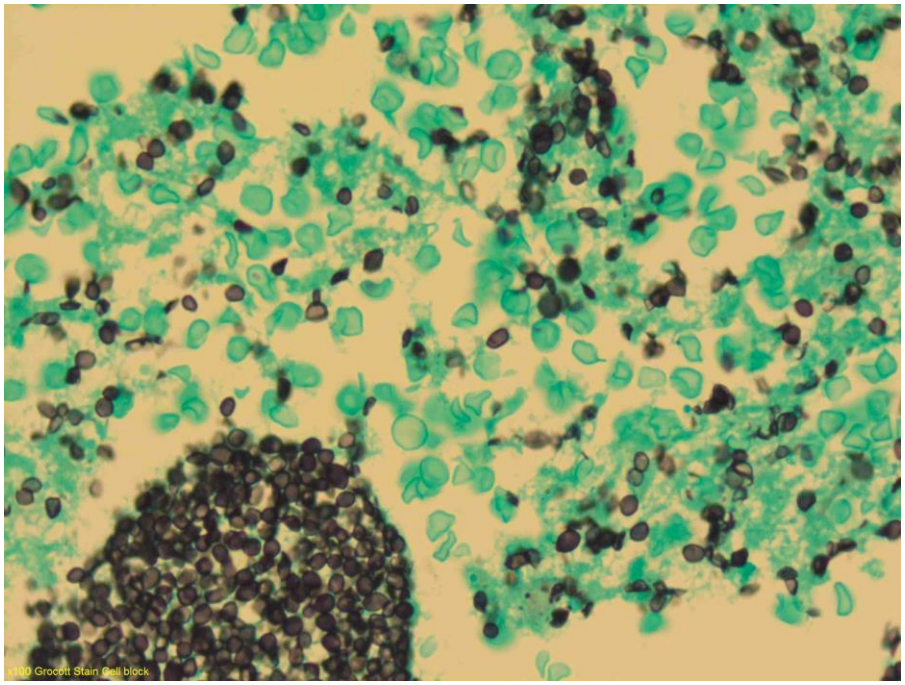
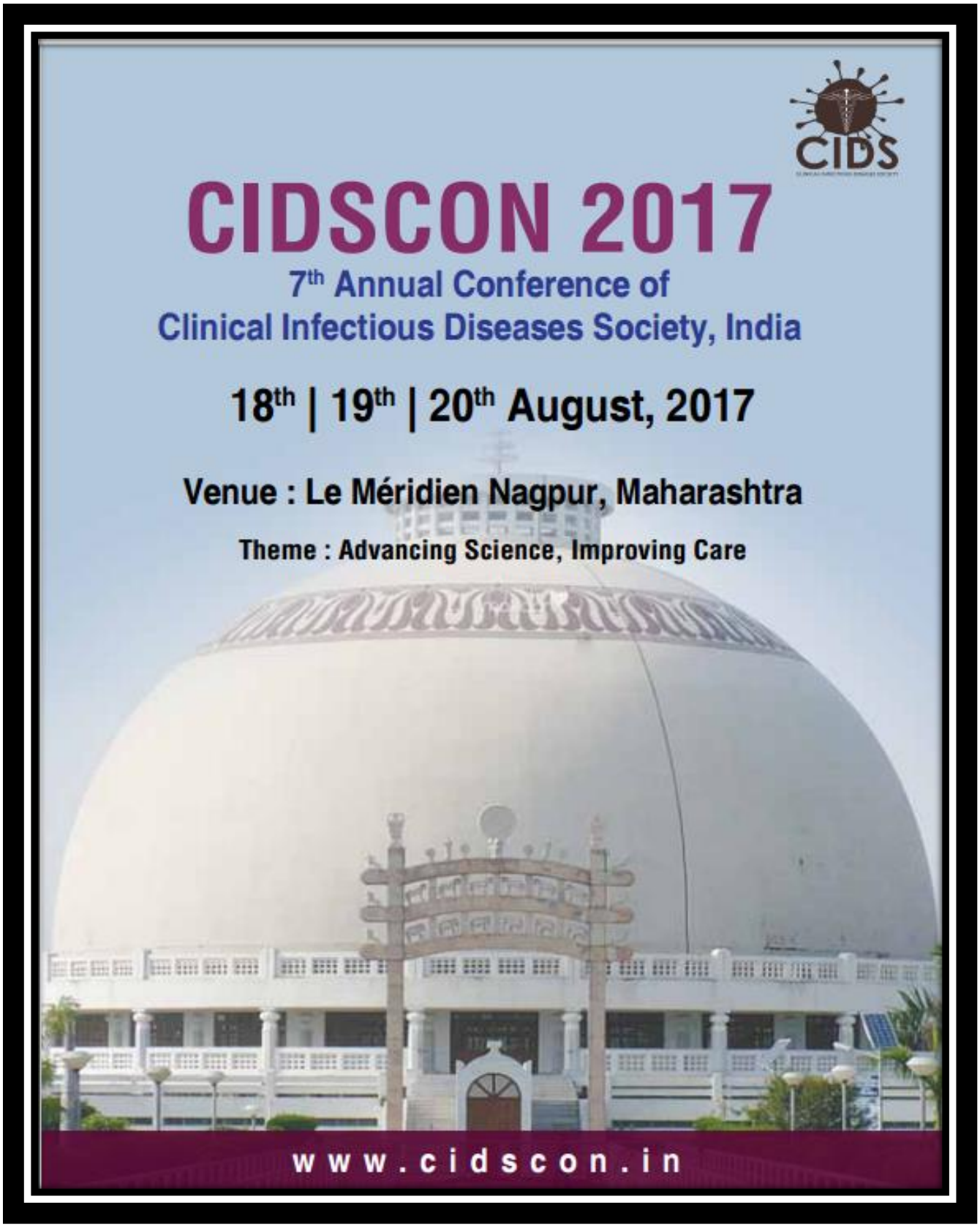


Figure 4: FNAC of adrenal masses suggestive of histoplasmosis.

Final diagnosis: Progressive disseminated histoplasmosis

(case provided by Dr Neha Gupta)


CIDS
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