Volume : 2 | Issue : 9 | Sept 2013 • ISSN No 2277 - 8160

Research Paper | Microbiology

Chronic Diarrhoea Due to C. parapsilosis in a HIV positive Patient : A Case Report

Dr. Karan. O	Dept of Microbiology, Govt. Medical College Aurangabad,India
Dr. Swati Jakwad	Dept of Microbiology, Govt. Medical College Aurangabad,India
Dr. Mukta. K	Dept of Microbiology, Govt. Medical College Aurangabad,India
Dr. Jyoti. I	Dept of Microbiology, Govt. Medical College Aurangabad,India
Dr. Ajit. D	Dept of Microbiology, Govt. Medical College Aurangabad,India

ABSTRACT

Case Report: A 43 year old HIV- 2 positive patient came with passage of semisolid stool 5-6 times a day since 3 months, abdominal discomfort since 3 months. Patient has CD4 count 280 & on ART treatment consisting of Tenofovir, Lamivudine, Atazar & Retonavir. Initially he was treated with Ornidazole & Ofloxacin combination tablet for 5 days still the symptoms prevailed. Deworming with Albendazole was also done still the frequency of passage of stool remained the same.

Microscopy, saline preparation showed plenty of giant budding yeast cells (3-4 µm x 5 -8 µm) in every high power field. Pseudohyphae were predominant. Ova, cysts, trophozoites were not seen; nor were there any red blood cells, pus cells or macrophages. On Corn Meal agar with tween 80 at 25˚C after 72 hours showed presence of abundant pseudomycelium, mostly consisting of branched chains of elongate cells in more or less Christmas tree-like arrangement. Proving it to be Candida parapsilosis.

KEYWORDS: Candida parapsilosis, Diarrhoea, HIV 2

1. Introduction: Candida species form a ubiquitous genus of yeast present throughout the environment. They are part of the normal flora in the alimentary tract and on mucocutaneous membranes (1). *C albicans* is the most common yeast species isolated from human faeces, being identified in 65% of stool samples from healthy adults (2).
Candida has been identified in high concentrations in the stools frequently with associated diarrhoea cases. It has also been suggested as a cause of antibiotic associated diarrhoea. The role of candida is therefore potentially important as the disease is common and potentially treatable. *C. parapsilosis* has been associated with localised & deep seated infections. Fungemia related to central venous catheter & paraenteral nutrition has also been reported. *C. parapsilosis* has been associated with endocarditis, endophthalmitis, septic arthritis & peritonitis (3). *C. parapsilosis* has been reported as a cause of diarrhoea in children (4). Up to this date we haven't found any reference of *C.parapsilosis* being implicated as a cause of diarrhoea in a HIV- positive patient. So we are hereby reporting first ever case of diarrhoea due to *C.parapsilosis* in a HIV-2 Positive patient.

2. Case Report : A 43 year old HIV- 2 positive patient had –

C/O passage of semisolid stool 5-6 times a day since 3 months abdominal discomfort since 3 months.

No H/o passage of mucus or blood in stool

Patient was tachypneic & blood pressure was low.

On G/E patient was pale.

2.1 Initially he was treated with Ornidazole & Ofloxacin combination tablet for 5 days still the symptoms prevailed. Deworming with Albendazole was also done still the frequency of passage of stool remained the same.

2.2 After being treated with every possible drug, finally stool sample of the patient was sent to our laboratory.

3. Laboratory Work Up- On gross examination, stool was greenish semisolid & non foul smelling with no e/o segments of worm

3.1 Saline preparation showed plenty of giant budding yeast cells with pseudohyphae being predominant in every high power field. No e/o ova/cyst/trophozoite.

3.2 The stool sample was cultured on SDA & incubated at 37 ˚C. Next day culture grew white creamy shiny smooth colonies.

3.3 Germ tube test was found to be negative. Hi chrome candida agar media show cream to pale pink coloured colonies.

3.4 On Corn Meal agar with tween 80 at 25˚C after 72 hours showed Pseudomycelium present, mostly abundant, consisting of branched chains of elongate cells in more or less Christmas tree-like arrangement. Proving it to be Candida parapsilosis.

3.5 Antifungal Susceptibility by disc diffuson technique was done using amphotericin B , Fluconazole & Itraconazole was found susceptibile to all drugs.

4. Treatment History:- Antifungal treatment was suggested to the clinician along with the microscopy report & Tablet Fluconazole 200mg BD X 3 days was prescribed to the patient. The treatment brought significant reduction in the stool frequency of the patient. Repeat stool sample was called after 3 days showed the same species but this time the number of budding yeast cells were much less compared to 1st visit so an extended 3 days course of fluconazole was prescribed to the patient. After this 6 days course patient was fully relieved of his symptoms. On 7th day microscopy was done on 3rd stool sample which showed no evidence of budding yeast cells.

5. Disscussion-The aetiology of the diarrheic process in AIDS may be caused by viruses, bacteria, fungi, protozoa or helminths, as well as HIV itself. The frequent pathogens are *enteroaggregative E.coli , Microsporidium, Cryptosporidium sp., Rotavirus , Shigella sp., Candida albicans , Entamoeba histolytica , Salmonella enterica , Isospora belli and Blastocystis hominis.* C.parapsilosis being ubiquitously present everywhere can be an opportunistic infection in an immune compromised host. Repeated isolation of the same species & prompt response to the treatment make it an obvious pathogen & rule out the chance of being a laboratory contaminant. Stools of all HIV-positive patients with diarrhoea should thoroughly be investigated to identify etiologic agents for proper management. Medical Microbiologist has a very important role to play in the diagnosis & treatment of patient in every case.

REFERENCES

1.Warren NG, Shadomy JH. Yeasts of medical importance. In: Balows A, Hausler WJ, Herrmann KL, et al, eds. Manual of clinical microbiology. Washington, DC: American Society for Microbiology, 1991:617–29. | 2. Cohen R, Roth FJ, Delgado E, et al. Fungal flora of the human small and large intestine. N Engl J Med 1969;280:638. | 3.Jagdish Chander;Textbook of Medical Mycology 3rd edition 2009;276 | 4 D Forbesa, L Eec, P Camer-Pescib, P B Wardb; Faecal candida and diarrhoea Arch Dis Child 2001;84:328-331