

ORAL CANDIDIASIS IN A PAEDIATRIC FEMALE PATIENT DURING COVID-19 OMICRON PANDEMIC ERA - AN ORAL AND MAXILLOFACIAL PATHOLOGIST AND PAEDIATRICIAN PERSPECTIVE

Dr. M. Pavithra

Dr.MGR Medical University, Chennai, Tamil Nadu

ABSTRACT

Acute pseudomembranous candidiasis is an opportunistic infection. Etiology might include chemotherapy, xerostomia, radiotherapy, nutritional deficiencies, antibiotic therapy, steroids, immunocompromised conditions, etc. The main causative organism targets Candida albicans. Increased dominance of this organism leads to dysguesia and dysphagia. Hereby we present a case of oral candidiasis in a paediatric patient during the SARS COVID-19 OMICRON pandemic era.

KEYWORDS: Thrush, Paediatrics, Immunocompromised, Candidiasis

Article History

Received: 22 Jun 2024 | Revised: 24 Jun 2024 | Accepted: 30 Jun 2024

INTRODUCTION

Sometimes infection might be opportunistic such as acute pseudomembranous candidiasis. Etiology includes radiotherapy, chemotherapy, immunocompromised conditions, antibiotic usage, steroid usage and xerostomia. The main organism involved is Candida albicans. Increased growth of this organism might lead to dysguesia and dysphagia. On clinical examination, it may appear as white curd-like plaques, involving buccal mucosa, tongue, gingiva, palate and oropharyngeal region, which result in pain or haemorrhagic areas on scraping. In the case of the paediatric population, the infection might arise from the birth canal, contaminated pacifier or infected mother's nipple. During 1980-1989 there was an increased incidence rate of oropharyngeal candidiasis of about 4.7 times as per Fisher-Hoch and Hutwagner. Deaths secondary to oropharyngeal candidiasis increased 5-fold during this period.

CASE REPORT

A female patient of 10 years old attended the department with a complaint of curdy white deposits inside the oral cavity. History in relation to dental, medical and family were unrelated. The patient was conscious, oriented and afebrile. Vital signs were normal. Intraoral clinical examination revealed curd whitish plaques or patches on the right and left buccal mucosa, tongue and palatal region. The plaques were scrapable. On scraping, erythematous areas were seen. On clinical diagnosis, pseudomembranous candidiasis was confirmed. Management of pseudomembranous candidiasis included topical application of clotrimazole (1%) three to four times per day in conjunction with good oral hygiene maintenance. After three days of treatment, the patient responded well and clearance of white plaques was observed.

DISCUSSION

Pseudomembranous candidiasis is usually seen in 5-7% of the paediatric population. Etiology targets to history of thrush, infection of nipple skin, prolonged antibiotic therapy, impaired immune response, infection in birth canal passage and mastitis. Management includes antifungal agents as of nystatin of 1ml 100,000 units equally divided in 2 drops, 4 times daily for up to 10-14 days. Drug interactions are reported nil due to impaired systemic absorption of nystatin. In the case of patients who are intolerant or refractory to topical treatment and those at a higher risk of developing systemic infections. The dose and duration of systemic therapy can be reduced by topical therapy. Amphotericin B, clotrimazole, fluconazole and keconazole are a few antifungal agents in the management sector. Oral suspension of Clotrimazole 10 mg/ml to be used four times per day for 2 weeks. Ketoconazole is not recommended due to the risk of liver toxicity. If initial therapy fails, then culture and sensitivity testing should be done.

CONCLUSIONS

Dental professionals and paediatricians' rapport should go hand in hand in case of the occurrence of oral candidiasis in the paediatric population. Untreated cases might result in a fatal outcome. Antifungal agents play an important role in the management sector.

REFERENCES

1. Samaranayake LP, Lamey PJ (1988) oral candidiasis: clinicopathological aspects. *Dent update* 15:227-228,230-1.
2. Darwazeh AM, Al-Bashir A (1995) oral candidal flora in healthy infants. *J Oral pathol Med* 24:361-364.
3. Fisher-Hoch SP, Hutwagner L (1995) opportunistic candidiasis: an epidemic of the 1980s. *Clin Infect Dis* 21:897-904.
4. Zollner MS, Jorge AO (2003) candida spp. occurrence in oral cavities of breastfeeding infants and their mother's mouths and breasts. *Pesqui odontol Bras* 17:151-155.
5. Epstein JB, Polsky B (1998) Oropharyngeal candidiasis. A review of its clinical spectrum and current therapies. *Clin Ther* 20:40-57.
6. Akpan A, Morgan R (2002) oral candidiasis. *Postgrad Med J* 78:455-459.
7. Hartung de capriles C, Mata-Essayag S, Azpiroz A, ponente A, Magaldi S, et al. (2005) Neonatal candidiasis in venezuela: clinical and epidemiological aspects. *Rev Latinoam Microbiol* 47:11-20.
8. Petti S, tarsitani G, D' Arca AS (2001) A randomized clinical trial of the effect of yoghurt on the human salivary microflora. *Arch oral biol* 46:705-712.
9. Manzoni P, Mostert M, Leonessa ML, Priolo C, Farina D, et al. (2006) oral supplementation with lactobacillus casei subspecies rhamnosus prevents enteric colonization by candida species in preterm neonates: a randomized study. *Clin infect Dis* 42:1735-1742.
10. Feldman M, Tanabe S, Howell A, Grenier D. Cranberry proanthocyanidins inhibit the adherence properties of *Candida albicans* and cytokine secretion by oral epithelial cells. *BMC Complement Altern Med*. 2012 Jan 16;12:6. doi: 10.1186/1472-6882-12-6. PMID: 22248145; PMCID: PMC3273432.



Figure 1

