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CASE REPORT

CHRONIC MUCOCUTANEOUS CANDIDIASIS: A CASE REPORT

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ABSTRACT: Chronic mucocutaneous candidiasis (CMC) is a rare group of overlapping syndromes that have in common a clinical pattern of persistent and diffuse cutaneous or mucosal candidal infections. It is usually associated with multiple endocrine dysfunctions and autoimmune disorders therefore patient needs a complete systemic evaluation. Patients of CMC are also susceptible to other fungal and viral infections due to impaired cell mediated immunity. We report a case of CMC wherein the cutaneous and mucosal lesions were not associated with any systemic disorder. The patient responded to topical clotrimazole and oral fluconazole.

KEYWORDS: Chronic mucocutaneous candidiasis, Autoimmune disorders, Clotrimazole, fluconazole.

INTRODUCTION: Chronic mucocutaneous candidiasis (CMC) is an immune disorder of T-cells characterized by chronic infections with candida involving mucosa, skin and nails.[1] It does not represent a specific disease but rather a presentation of a spectrum of immunologic, endocrinologic and autoimmune diseases. Endocrine dysfunctions are the most common underlying disorder associated with CMC.[2] It is a rare disorder and may become apparent at any time in life but it typically presents before three years of age.[3] CMC is not associated with a high degree of mortality because disseminated invasive candidal infections are rare, however, significant morbidity is associated with persistent skin or mucosal infections, endocrinopathies and other associated autoimmune diseases. We report a case of CMC in a two month old child.

CASE REPORT: A two month old male child was brought to us with a history of persistent erosions and pustules in the perianal area, and over the trunk, oral ulcers and nail changes. Her parents revealed that, when the baby was three days old, he started with some small vesicular lesions and pustular lesions in perianal area which increased in size and turned into erosions within a period of two weeks and lesions were persistent. After one month, patient started developing oral ulcers and swelling of the nail folds of all the digits of both hands. The patient was born out of a non–consanguineous marriage, after full term, by vaginal route, and the birth weight being 3kgs. There is history of vaginal candidiasis to the mother in the ante natal period.

On examination, there were vesicles, micropustules and perleche periorally. Oral thrush were present. Retroauricular erythema and fissures were present. Seborrhea capitis was seen on the occiput. Perianal erythema, erosions and maceration was present. There was yellowish discolouration, sub ungual hyperkeratosis, paronychia and, onycholysis bilaterally in both finger and toe nails. There was no localized or generalized lymhadenopathy. The general physical and systemic examination was normal. Ophthalmological examination was also noncontributory. Complete blood counts, liver function tests and kidney function tests were normal. Chest radiography and ultrasonography of abdomen were normal. Thyroid profile, parathyroid hormones, serum calcium, phosphate, uric acid and serum cortisol level were all within normal range. Scrapings from skin lesions and nail plates were subjected to potassium hydroxide examination and culture on

Sabouraud's dextrose agar medium. Candida albicans was isolated from all the three sites. On the basis of history, clinical examination and investigations we made a diagnosis of isolated chronic mucocutaneous candidiasis. The patient was treated with topical clotrimazole and oral flucanazole, the lesions cleared completely in four weeks except nail changes.

DISCUSSION: Chronic mucocutaneous candidiasis (CMC) is a rare condition characterized by widespread and persistent infection of skin, mucosa, and nails caused by candida albicans. CMC is associated with defect in cell mediated immunity. Recent studies suggest that there is alteration in production of cytokines in response to candida antigens. These include decreased interleukin-2 and interferon-gamma levels (Th 1 cytokines) and increased interleukin-10 (Th2 cytokines).[4] CMC can be limited to skin and mucosa only or it may be associated with polyendocrinopathy, thymoma and KID (Keratitis, icthyosis, deafness) syndrome.[5] Hypoparathyroidisim and adrenal failure are the most common endocrine abnormalities associated with CMC.[6] Other infections like dermatophytosis, herpes simplex and disseminated mycobacterium avium infection are also reported to coexist with CMC.[7] Gastrointestinal and hematological dysfunctions are sometimes associated with CMC.[7] In our case only skin, mucosa and nails were affected and no systemic involvement was detected. There was no predisposing factor for oral candidiasis in our case. Current therapy for CMC mainly revolves around prolonged use of antifungal agents especially the azole group.[8] Depending upon the underlying immunologic nature of CMC, various treatments like bone marrow and thymus transplantation or transfusion with white blood cells and candida specific antigens have been attempted.[9,10] In our patient, the lesions cleared completely with topical clotrimazole and oral fluconazole 50mg in four weeks.

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Fig. 1: Finger nails showing subungual hyperkeratosis and yellowish discolouration and onycholysis

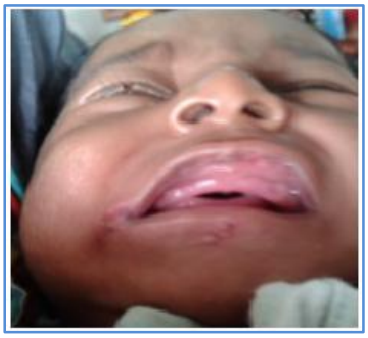

Fig. 2: Perleche lesions at angle of mouth and pustular lesions around oral cavity

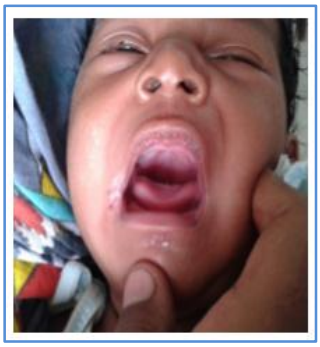

Fig. 3: Oral thrush and perleche

Fig. 4: Peri anal linear fissures

Fig. 5: Growth on SDA showing creamy white colonies

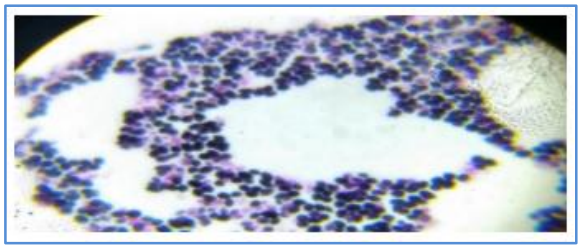

Fig. 6: Gram stain from growth showing gram positive budding yeasts

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