Clinical Study of Candidal Manifestations

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Abstract: Aims and objectives: To study the prevalence of various mucocutaneous candidal manifestations and to evaluate the predisposing factors. Materials and Methods: 150 Patients with clinically suspected lesions of candidiasis and minor laboratory investigations. Results: Females were more commonly affected (63.5%) and prolonged contact with water was the commonest predisposing factor (28%). Intertrigo was the commonest clinical manifestation (36.6%). Culture examination was found to be more superior to KOH examination. Conclusion: Clinical presentation of candidiasis most often enables to detect the underlying predisposing factors, the prevention or treatment of which decreases the discomfort caused and chances of recurrence, thus improving the quality of life of the affected individual.

Keywords: Candida, Predisposing factors, Clinical types, Clinical marker

1. Introduction

Mucocutaneous candidiasis is a common infection of skin, nails, oral and vaginal mucous membranes and is often associated with chronic course and frequent recurrences. If untreated, the disease course is usually unremitting. Even regular treatment doesn’t provide complete cure and the chronic and recurrent disease affects the quality of life of an individual with candidal infection. Although healthy individual carry candidal species on body surface, only a few suffer from overt disease. Knowing and investigating for predisposing factors helps in better management of mucocutaneous candidiasis.

2. Materials and Methods

The present study was carried for a period of one year from December 2014 to November 2015 in the Department of Dermatology, Government general hospital, Anantapuram. A total number of 150 patients were selected randomly for the study, after obtaining their informed consent. The study population included clinically suspected cases of candidiasis with various lesions like oral thrush, vaginitis, cutaneous and nails infections.

After selection of cases and detailed history taking, the patient was examined in good light for varied manifestations of candidiasis such as discharge in genital areas, swelling and discoloration of nails and nail folds, fissuring of angles of mouth, intertriginous areas and oral cavity. Using sterile measures (70% isopropyl alcohol was used to sterilize skin and nails) samples were collected from various sites. KOH wet mount preparation for direct microscopy, Gram staining and Culture using Sabouraud’s dextrose agar were done for isolating Candida species.

3. Results

Among 150 patients studied 95 (63.5%) were females and 55 (36.5%) were males. And more patients belonged to age group above 40 (35.3%). Housewives constituted to more than half of the patients studied, (56.6%) followed by labourers(20.6%).

Intertrigo was the commonest clinical type seen in 55(36.6%), oral and vulvovaginal candidiasis constituted 34(22.6%) and 31(20.6%) patients respectively.

Table 1: Clinical Types

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Clinical Types</th>
<th>Total no. of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Intertrigo</td>
<td>55</td>
<td>36.6</td>
</tr>
<tr>
<td>2.</td>
<td>Oral Candidiasis</td>
<td>34</td>
<td>22.6</td>
</tr>
<tr>
<td>3.</td>
<td>Vulvovaginal Candidias</td>
<td>31</td>
<td>20.6</td>
</tr>
<tr>
<td>4.</td>
<td>Nail and Paronychia</td>
<td>20</td>
<td>13.3</td>
</tr>
<tr>
<td>5.</td>
<td>Balanoposthitis</td>
<td>10</td>
<td>6.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 1: Graphical representation of clinical types
Itching was the predominant presenting symptom found in 52 (34.6%) patients followed by pain in toes and hands 38 (25.3%) and 22 (14.6%) respectively.

Prolonged contact with water was the commonest predisposing factor, found in 42 (28%) patients. HIV infection and diabetes mellitus were factors responsible in 24 (16%) and 18 (12%) patients respectively. Steroid therapy, pregnancy, hyperhidrosis, prolonged use of antibiotics, internal malignancy and methotrexate therapy were other predisposing factors seen in all together in 15 (10%) patients. In 49 (32.6%) predisposing factors were nil to trace. Rippon and Hay & Moore had found frequent immersion in water as the major predisposing factor.

In a study by Klein et al., oral candidiasis was seen in 59% of HIV patients where as Martin and Kobayashi observed that 50% of HIV infected and 90% of AIDS patients to be having oral candidiasis.

Montes, Macneill & Garey, Mahapatra, Rippon and Klein et al. have found diabetes mellitus as one of the common predisposing factors for candidiasis of various types which is also seen in the present study. Mahapatra and Lynch et al. have observed candidiasis frequently in persons on oral steroid therapy.

Seelig, Macneill & Garey and Sobel et al. have observed the use of antibiotics as predisposing factor for candidiasis in their studies.

Mahapatra, Seelig and Hay & Moore have observed internal malignancy and immunosuppressive drugs to be one of the predisposing factors.

Thus the various predisposing factors depicted in present study were also observed by many authors. Culture was the most reliable diagnostic tool yielding positive results in 76 (50.6%) patients.

**5. Conclusion**

Candidiasis affecting the skin and mucous membranes was the most common manifestation seen in the current study. It was more often found to be associated with one or more predisposing factors. Prolonged immersion in water was the major predisposing factor followed by HIV infection and diabetes mellitus. In some individuals oral candidiasis was a good clinical marker in suspecting underlying HIV infection. The clinical presentation of candidiasis most often enables to detect the underlying probable predisposing factors/disease, the prevention or treatment of which decreases the discomfort caused by the condition and provides better quality of life.
References


