CASE REPORT

Gynaecothelia – A common yet ignored sign of multibacillary leprosy in males: A case series with review of literature

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Summary

Leprosy is one of the causes of gynaecothelia (enlargement of nipples), however little has been published about this common but usually ignored sign. Herein, we report nine male patients with multibacillary leprosy who had gynaecothelia although only two of them had associated gynaecomastia. None of these patients was aware of gynaecothelia until it was detected by the treating doctor during examination. This study is presented to highlight this common but ignored sign, which may occur specifically in multibacillary leprosy.

Introduction

Leprosy towards the lepromatous pole is multibacillary with an extensive bacillary load. The multiplication and spread of \textit{M. Leprae} accounts for many of the clinical features in this group.Skin lesions vary from widely disseminated, symmetrically distributed numerous small macules to diffuse infiltration and nodular lesions.\textsuperscript{1} Gynaecomastia and/or gynaecothelia (hypertrophy of nipple) can also be a feature in this group of patients.\textsuperscript{2} However, not much literature is available about gynaecomastia in leprosy. Herein, we report nine cases of leprosy with gynaecothelia to highlight the significance of this usually neglected sign in male leprosy patients.

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Table 1. Details of salient features of observed cases

<table>
<thead>
<tr>
<th>Case</th>
<th>Age</th>
<th>Diffuse infiltrated face/madarosis</th>
<th>Erythematous shiny nodules</th>
<th>Faint hypopigmented, normo- to hypoesthetic macules</th>
<th>Testicular atrophy</th>
<th>Gynaecomastia</th>
<th>Histology/SSS result</th>
<th>ENL lesions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Figure 1)</td>
<td>26 yrs</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Histoid leprosy/5+</td>
<td>Absent</td>
</tr>
<tr>
<td>2 (Figure 2)</td>
<td>25 yrs</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>LL/4+</td>
<td>Present</td>
</tr>
<tr>
<td>3</td>
<td>24 yrs</td>
<td>Absent</td>
<td>Absent</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>BL/4+</td>
<td>Absent</td>
</tr>
<tr>
<td>4</td>
<td>24 yrs</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>BL/3+</td>
<td>Present</td>
</tr>
<tr>
<td>5 (Figure 3)</td>
<td>25 yrs</td>
<td>Present</td>
<td>Absent</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>BL/4+</td>
<td>Absent</td>
</tr>
<tr>
<td>6</td>
<td>60 yrs</td>
<td>Present</td>
<td>Absent</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>LL/5+</td>
<td>Present</td>
</tr>
<tr>
<td>7</td>
<td>50 yrs</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Histoid leprosy/5+</td>
<td>Absent</td>
</tr>
<tr>
<td>8 (Figure 4)</td>
<td>40 yrs</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>LL/4+</td>
<td>Absent</td>
</tr>
<tr>
<td>9</td>
<td>50 yrs</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Present</td>
<td>Absent</td>
<td>LL/3+</td>
<td>Absent</td>
</tr>
</tbody>
</table>

SSS – Slit Skin Smear.
Case Reports

The material for this report consists of nine clinico-bacteriologically and histopathologically proven BL/LL adult male leprosy patients (age range 24–60 years). The salient features of observed cases are shown in Table 1.

All the nine patients were treated with standard WHO-MDT-MB therapy along with systemic steroids in those patients with ENL reaction.

Discussion

Gynaecomastia during the course of lepromatous leprosy is well known. There may be associated hypertrophy of the nipple. Hormonal imbalance and relative estrogen excess is
thought to be the cause of gynecomastia. Some of the other common causes of gynecomastia are idiopathic, cirrhosis of the liver, renal failure, testicular disorders, hypogonadism, drugs, etc. Prominence of the nipples alone can be seen in other infiltrative conditions like Post Kala-Azar Dermal Leishmaniasis, sarcoidosis, malignant infiltrations, etc. It is also observable in some ‘normal’ people.

The first patient with gynaecothelia in this case series, presented to us in July 2010. All the subsequent five cases of lepromatous leprosy were also found to have gynaecothelia. This consistent finding of gynaecothelia without gynaecomastia led us to look for the same sign in some of our old patient records. Gynaecothelia was present in three of our old cases also, of which two had gynaecomastia, a finding which was not considered significant at that time.

On review of the literature, the only detailed description of gynaecothelia in leprosy was by Powell way back in 1917 and 1924. In these reports the author along with his colleagues observed hypertrophy of nipple without associated gynaecomastia in 280 out of 302 male leprosy patients.
After 1924, not much emphasis was given to gynaecothelia in leprosy except for a few passing references in some textbooks and articles. The exact cause of gynaecothelia in male leprosy patients is not known; it may be a part of the infiltrative disease process. Study by Powell has shown only increased fibrous tissue and some oedema with sparse bacilli.

The interesting features of this present report are that (i) all the nine patients with gynaecothelia were BL or LL cases, (ii) gynaecothelia was bilateral in all the cases, (iii) only two out of the nine patients (22.3%) with gynaecothelia also had gynaecomastia. (iv) none of the patients were aware of gynaecothelia, (v) apart from gynaecothelia, faint, hypopigmented, hypesthetic macular lesions, visible only in good illumination, was the only presenting sign of the disease in one of our patients.

From our findings we agree with Powell’s opinion that, gynaecomastia is a common but often ignored sign. Further, gynaecomastia in leprosy may not be a rare phenomenon, if it is sought in all cases of leprosy. Conversely, the possibility of leprosy should be considered in any male complaining of isolated hypertrophy of the nipple. Further larger studies would be required to elucidate the pathogenesis of gynaecomastia in leprosy.

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References