Acute bilateral parotitis caused by Mycobacterium scrofulaceum: immune reconstitution disease in a patient with AIDS

Immune reconstitution disease (IRD) among HIV infected patients is an adverse consequence of restoration of immune responses during the initial months of antiretroviral treatment (ART).1 Previously, subclinical infections are “unmasked” or pre-existing opportunistic infections clinically deteriorate. Here we describe an unusual case in which a patient developed acute bilateral parotid enlargement as a result of IRD associated with Mycobacterium scrofulaceum infection. A 66 year old West African man was investigated for dysphagia, weight loss, and fatigue. Oesophageal candidiasis and HIV-1 infection were diagnosed with a blood CD4 lymphocyte count of 6 cells x10^3/μl and a plasma viral load of 416 566 RNA copies/ml. Further investigations, including chest radiography, sputum examination, mycobacterial blood cultures, bone marrow examination and culture, and abdominal ultrasonography, were normal. Following treatment of oesophageal candidiasis, the patient started ART with zidovudine, lamivudine, and efavirenz.

Eight weeks later, the patient developed acute swelling posterior to the angles of the jaw bilaterally, causing discomfort on mouth opening. He did not have xerostomia or other local or systemic symptoms. On examination, firm smooth masses were found, more marked on the right than the left, arising from the parotid glands. They were not tender and were not fluctuant. A presumptive diagnosis of IRD was made, although any underlying infection was unknown.

As for all books wishing to provide simple didactic for my taste, and I would have liked to know of any other book that discusses this either! As with all books that should be understood how it works and showed increased vascularity; intraparotid lymphadenopathy was not evident. However, several cervical lymph nodes were also unilaterally enlarged on the right (fig 1). Blood investigations revealed no inflammatory response and normal serum concentrations of angiotensin converting enzyme, calcium and amylase and autoantibodies. A chest radiograph and abdominal ultrasound were normal. No pathogens were identified in sputum or in blood cultures for bacteria and mycobacteria. Immunoglobulin G to mumps virus was detectable in serum, indicating previous infection. A fine needle aspirate (FNA) of the right parotid was paucicellular, precluding a cytological diagnosis. The patient’s blood CD4 count had rapidly increased to 80 cells x10^3/μl and the viral load was undetectable.

Acknowledgements
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Figure 1  Posterior view of the patient showing bilateral enlargement of the parotid glands (P) and unilateral enlargement of cervical lymph nodes on the right (LN).
Testing for Neisseria gonorrhoeae by nucleic acid amplification testing of chlamydia samples using Roche Cobas Amplicor in a rural area in the north of England does not find more gonorrhoea in primary care

Men with urethral gonorrhoea are usually symptomatic, women are less likely to have symptoms.1 If women are tested only for chlamydia and found to be negative, and tests for Neisseria gonorrhoeae are not performed, they are at risk of continuing infection with N gonorrhoeae as the infections may occur together.1 Patients concerned that they may have a sexually transmitted infection may access care through their general practitioner (GP). When testing both symptomatic and asymptomatic patients for chlamydia, GPs do not always test for N gonorrhoeae (local laboratory data). Even if they did, problems with sample transport, storage, etc., may influence sensitivity of cultures.6

To assess the effect of the introduction of nucleic acid amplification testing (NAAT) methods for N gonorrhoeae in a rural area with low gonorrhoea prevalence, all samples submitted for Chlamydia trachomatis NAAT in north Cumbria were also screened for N gonorrhoeae with the Roche Cobas Amplicor amplification and detection system, used according to the standard programme. N gonorrhoeae was cultured and identified according to national HPA standard operating procedures. From 471 genitourinary medicine (GUM) samples, 10/16 positive N gonorrhoeae NAATs were confirmed by culture. Confirmation was more likely in men. Six women with positive NAAT for N gonorrhoeae were treated by their GP before culture confirmation (none of their partners had evidence of infection) (table 1). One patient in GUM had clinical signs suggestive of N gonorrhoeae infection but negative cultures. Even if all cases where GPs had given treatment had gonorrhoea, the confirmed positive rate would only be 50%.

Of those with a positive N gonorrhoeae NAAT, only two confirmed cases were asymptomatic (both female and identified through GUM where culture for N gonorrhoeae is routine practice) (table 1). The concern of the authors that had prompted this research was that asymptomatic women with N gonorrhoeae who attended their GP for care might, if only tested for chlamydia, continue with untreated N gonorrhoeae infection. Although the study protocol included patient information explaining that false positive test results were possible, considerable anxiety was provoked in both patients and their GPs when a possible diagnosis of gonorrhoea was made. Our predictions from local GUM prevalence of gonorrhoea and the estimated sensitivity and specificity of the testing method suggested that unconfirmed positive samples from men were unlikely, but predicted approximately five unconfirmed positive results from women (one from GUM, four from primary care). We had four unconfirmed positive results from women in GUM and 16 in primary care. Cross reactivity may occur with some non-pathogenic strains of Neisseria and Lactobacillus species and may explain the higher positivity rate in women.2 Medical practitioners have differing responsibilities according to their area of work. GPs have a particular duty of care towards the individual. GUM physicians have a duty of care to the individual but also have public health responsibilities. Public health policies needed to protect the community may be in conflict with current bioethical principles regarding the care of individual patients.2

The additional laboratory costs of the N gonorrhoeae NAAT testing materials for this number of samples was approximately £1500, without taking into account the costs of laboratory or clinician time. We think that screening for N gonorrhoeae by NAAT with this method is neither cost effective nor appropriate in this low prevalence population.

Table 1

<table>
<thead>
<tr>
<th>Total tested for C trachomatis by NAAT</th>
<th>Specimens cultured for N gonorrhoeae</th>
<th>Positive for C trachomatis</th>
<th>Positive for N gonorrhoeae by NAAT</th>
<th>Those positive for N gonorrhoeae by NAAT confirmed by culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP 966 (903F, 63M)</td>
<td>388 (324F, 64M)</td>
<td>64 (6.6%)</td>
<td>17 (1F, 1M)</td>
<td>1 (M)</td>
</tr>
<tr>
<td>GUM 471 (221F, 250M)</td>
<td>493 (238F, 253M)*</td>
<td>63 (13.4%)</td>
<td>16 (7F, 9M)</td>
<td>10 (2F,8M)</td>
</tr>
<tr>
<td>Total 1437</td>
<td>881</td>
<td>127</td>
<td>33</td>
<td>11</td>
</tr>
</tbody>
</table>

Female specimens (F), male specimens (M).

1Discrepancy in NAAT v culture numbers as some men could not provide urine specimens and some individuals had cultures taken from more than one site.

2One female had received antibiotics in the week before sample being taken—excluded from further analysis.

All urinary samples from men and all cervical samples from women with requests for chlamydia NAAT testing were also tested for N gonorrhoeae by NAAT methods. The reasons that general practitioners do not send culture specimens from their patients are unknown.