

## Tonsillitis and the march of science

Sore throats and tonsillitis used to be treated in a quite arbitrary way. Now, because these conditions present early, are common (12 per cent of the population suffer in any two week period<sup>1</sup>), and occur in an area readily accessible for inspection and investigation, they have become a fruitful field for research. We must be grateful for the rational approach now available to us.

First, it is impossible to distinguish between bacterial and viral sore throats on clinical grounds; the opinions of experienced clinicians do not correlate with bacteriological findings.<sup>2</sup> Yet the typical streptococcal tonsillitis is easily recognised, and the "patchy red throat of viral aetiology" is familiar to all;<sup>3</sup> glandular fever typically presents as "an obvious follicular tonsillitis with cervical adenitis, which looks as though it ought to respond to penicillin but doesn't".<sup>4</sup> Throat swabs from people with sore throats grow  $\beta$ -haemolytic type A streptococci in 30 per cent, other bacteria and viruses in 15 per cent, and nothing in the remainder.<sup>3</sup> Strangely, throat swabs from the normal population grow 30 per cent haemolytic streptococci, 15 per cent other organisms and the remainder nothing. Using Koch's postulates, it could be argued that there is no evidence that the streptococcus causes the sore throat; but this is clearly erroneous, for doctors have been using penicillin for streptococcal sore throats for years, and they can't all be wrong. In glandular fever, the patient's blood may show a positive heterophile antibody (Paul Bunnell) response. If not, it may show antibodies to toxoplasma: if not, serology may be positive for cytomegalovirus: if not, it probably wasn't glandular fever, so forget about it.

In a double-blind trial of penicillin versus placebo in some 500 patients<sup>5</sup> there was "no significant difference (in the length of illness) between the penicillin and placebo treated groups" and "no group of symptoms was associated with statistically significant improvement after treatment with penicillin". However "there seems to be general agreement that an antibiotic is indicated for outright tonsillitis, swelling of one or both tonsils or the uvula"<sup>3</sup>, and "definite indications include... a severe degree of illness... and... no improvement after 48 to 72 hours."<sup>6</sup> Happily this will give time for the results of throat swabs to arrive; although the double-blind trial showed that the patients with streptococcal sore throat who improved to any significant extent after penicillin (as compared with placebo) were those whose symptoms had lasted less than 48 hours.<sup>5</sup>

All type A streptococci will be sensitive to penicillin; these cases call for throat swabs from hospital workers because "these patients are probably more likely to have resistant bacteria acquired from the local hospital".<sup>3</sup> Most hospital consultants give antibiotics in all cases for much the same reason that all new inpatients have nitrazepam. Although glandular fever is of viral origin, bacterial superinfection may occur;<sup>6</sup> while a course of penicillin will not relieve sore throat lasting two weeks or so due to the virus, it may ease the soreness of shorter duration caused by the bacteria.<sup>7</sup>

Otherwise it seems to be generally agreed that symptomatic treatment is the order of the day; soluble aspirin gargles can be comforting, and lozenges may be used, although there is no evidence that these are of real benefit.<sup>6</sup> What about cold drinks and ice cream, which are more pleasant than penicillin?

One final point: in Holland, only 8.7 per cent of persons suffering from streptococcal sore

throat visited a physician.<sup>8</sup> Hardly surprising, is it?

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### REFERENCES

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