Peritonsillar abscess

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In this issue of the NZMJ, Love et al\(^1\) report interesting observations about patterns of epidemiology and microbiology of peritonsillar abscess (PTA) in Canterbury and make comparisons with previous studies performed at Christchurch Hospital. The report contains some valuable observations when it comes to the treatment of the condition.

Peritonsillar abscess (also known as quinsy) is a potentially life-threatening infection of the potential space adjacent to the tonsillar capsule in the oropharynx. It can be difficult for doctors unfamiliar with PTA to differentiate it from severe tonsillitis but unilaterality of symptoms and inability to swallow saliva are good indicators. The main differentiating signs seen are trismus, swelling or bulging of the soft palate, medialisation of the tonsil and deviation of the uvula.\(^2\) PTA is life-threatening because of both its potential for airway obstruction and spread to the parapharyngeal and retropharyngeal spaces. It is reported that George Washington probably died from quinsy in 1799.\(^3\)

It is reassuring that 97.3% of isolates are reported as penicillin sensitive. Penicillin remains the first-line antibiotic for all tonsillar infections and this is the sole agent used in many New Zealand hospitals. In other countries resistance rates vary from 10–50%.\(^4\) In a survey of UK consultants, 28% had a preference for penicillin monotherapy, whilst penicillin combined with metronidazole was the choice of 44%.\(^3\) Research has shown that even when patients have penicillin resistant organisms, treatment with aspiration and parenteral penicillin still achieves clinical resolution.\(^5\) This is in accordance with principles of abscess management where drainage is paramount.

Penicillin remains an effective drug especially when given at adequate dosage. The usual recommended dosage for tonsillitis and PTA is 500 mg phenoxymethylpenicillin four times a day for duration of 5 to 10 days. It is effective for all peritonsillar bacterial infections ranging from tonsillitis to quinsy. A Cochrane review concludes that use of oral antibiotics in sore throat reduces the risk of suppurative complications such as PTA.\(^6\) Some patients with severe tonsillitis and those developing early unilateral tonsillar symptoms may require intravenous antibiotics.

With the increasing use of community nurse antibiotic administration there is scope to effectively manage such patients with the aim of preventing progression of the illness and PTA formation. Using penicillin has two main advantages; avoidance of both side-effects such as diarrhoea and candidiasis associated with broader spectrum antibiotics, and the commonly observed maculopapular rash when infectious mononucleosis is treated with amoxycillin and its derivatives. If a patient is penicillin allergic, erythromycin or a first-generation cephalosporin is an effective alternative.
The report by Love et al also touches on some changing aspects in the management of PTA. The ENT literature debates aspiration versus incision and drainage of the abscess, and many centres may perform both depending on the clinical situation. Both techniques are generally performed under local anaesthesia owing to the advantage conferred by a patient protecting their own airway. If drainage is done under general anaesthesia (such as might be done in children or poorly-compliant patients) abscess drainage is usually achieved by tonsillectomy.

Some centres perform acute or “hot” tonsillectomy for PTA. In 2001 only 1% of UK surgeons performed hot tonsillectomies, whilst 12% would perform tonsillectomy for those with abscesses that were slow to settle. The advocates of acute tonsillectomy promote one recovery time from both infection and surgery. Argument against this approach is that there is increased intra-operative blood loss and a presumed increase in the rate of postoperative haemorrhage; and critics maintain that following a single episode of PTA patients are statistically unlikely to develop any further tonsillar problems, thus negating the need for tonsillectomy.

Controversy exists over the rate of reactionary and secondary haemorrhage following hot tonsillectomy. Retrospective studies comparing rates of bleeding show an increased rate of haemorrhage following both acute and interval tonsillectomy compared to elective tonsillectomy. In one study the interval tonsillectomy group had a haemorrhage rate of 11.6% compared to 8% in the acute tonsillectomy group, this difference was not statistically significant.

In summary, peritonsillar abscess is a moderately common complication of tonsillitis which requires urgent treatment because of discomfort, airway obstruction and risk of deep neck space abscess formation. Reassuringly the local pattern of antibiotic sensitivities allows the use of penicillin as a first-line monotherapy. Most patients have a single episode of PTA and will require no further intervention. Future research clarifying the role of “hot tonsillectomy” in the management of peritonsillar abscess is awaited with interest.

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