Should Watchful Waiting Be Used More Often for Acute Otitis Media?

RECENT ANXIETY about the treatment of acute otitis media has been precipitated by a resistance to antibiotics by the common pathogens that can cause this infection. The medical profession is facing an increasingly impotent option in the form of antibiotics, prompting physicians around the world to consider alternatives. In this issue of the ARCHIVES, Pichichero and Poole have undertaken a comprehensive study involving pediatricians and otolaryngologists. The objectives were to assess their recognition of the physical findings of acute otitis media and their ability to perform myringotomy. The principal issue is the safety of performing myringotomy in children with acute otitis media. Because this is an office procedure in which a general anesthetic is not administered, the child is strapped to a papoose board and held down. Myringotomy is not without potential serious complications. The superior part of the middle ear cavity contains the ossicles and the chorda tympani branch of the facial nerve. The medial wall of the cavity (which would be encountered should the physician proceed too far) contains the inner ear and is related to the internal carotid artery. Operating in such a dangerous area with a possibly mobile patient in a confined space requires practice and skill. In the study, the pediatricians and otolaryngologists practiced on mannequins cleverly arranged with sacks of colored fluid to indicate if the operators had reached the right spot, gone too far, or gone too high. The competency rate was judged to be reasonable (15% made an error), although how this would translate into complications in a living, moving child is not clear.

See also page 1137

It is important to restrict myringotomy to those who will benefit. The authors studied the physicians’ accuracy in diagnosing acute otitis media. The physicians looked at 9 video images of tympanic membranes and recorded the diagnosis. Only 1 of the 9 had acute otitis media (a classic case with a red and bulging eardrum); the other 8 cases were made up of secretory otitis media (“glue ear”), eardrums that were retracted but otherwise normal, and normal eardrums. Diagnostic acumen was not good for either group: 50% of both groups judged nonacute otitis media as acute. This would translate into an additional 50% of children receiving myringotomies who could not benefit, of whom 15% or more would be harmed by the procedure. The operation’s psychological effects of being held down and strapped to a papoose board are not described. We imagine that many children and their parents (to say nothing of their physicians!) would find this procedure a harrowing experience.

A third option, curiously notable by its absence, is supportive treatment for acute otitis media. Quality evidence from randomized controlled trials, systematically reviewed and meta-analyzed, now supports the option of no treatment. Compared with antibiotics, their nonuse does not affect the perception of pain at 24 hours, although there is a one-third reduction thereafter. Studies show no differential benefit between patients receiving antibiotics and controls for the deafness component of acute otitis media. This is a spontaneously remitting disease.

What happens if whole populations adopt a watchful-waiting strategy? The answer is, nothing catastrophic. With a policy of supportive treatment only (and using antibiotics and/or myringotomy for <5% of diagnosed cases of acute otitis media), more than 90% of nearly 5000 children in Tilburg, the Netherlands, recovered within a few days, and the course of the condition was severe in only 2.7% of patients. About 80% of the children with severe illness were successfully treated with antibiotics alone or in combination with myringotomy.

Perhaps we need to offer the alternative of watchful waiting more often for acute otitis media, rather than marginally effective antibiotics (which cause bacterial antibiotic resistance) or the fearsome procedure of myringotomy. Until this technique undergoes clinical trials, we must assume that it is not just ineffective but also dangerous and unpleasant.

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REFERENCES


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