CORRESPONDENCE

Acute Otitis Media: A Structured Approach

Dr. med. Jan Peter Thomas, Prof. Dr. med. Reinhard Berner, Prof. Dr. med. Dr. h.c. Thomas Zahnert, Prof. Dr. med. Stefan Dazert in issue 9/2014

Additions Warranted

The authors recommend intravenous antibiotic treatment in acute otitis media (AOM) occurring within two months after insertion of a cochlear implant (CI). In cases where the device was implanted more than two months prior, they recommend empirical treatment with amoxicillin and, if required, clavulanic acid, citing Rubin (1). As the authors did not recommend any further measures, we think some additions are warranted.

Rubin (1) recommends, independently of the time that has passed since the implantation procedure, paracentesis and microbiological work-up of middle-ear secretions, in order to target the treatment. Meningitis is a serious complication of AOM in patients with cochlear implants (1, 2). Rubin based his recommendation of treating AOM with oral antibiotics (in addition to paracentesis!) more than two months after implantation on the assumption that vaccinations protecting against meningitis were given before the implantation procedure. In addition to the 7-valent pneumococcal vaccine, Rubin lists the 13-valent vaccine in all children and a 23-valent vaccine in older children; furthermore, vaccination against *Haemophilus influenzae*—all of these should also be given to all family contacts living with the person with the cochlear implant. These vaccinations can drastically reduce the risk of meningitis due to *H influenzae* or pneumococci, which are among the most common pathogens causing AOM. In view of the fact that the protection conferred by the 23-valent pneumococcal vaccine is present in only 56% of patients, Lalwani (2) recommends undertaking paracentesis and microbiological analysis of secretions at the start of antibiotic treatment. A glance at the recommendations from the Robert Koch-Institute (3) shows that in persons living in Germany, the vaccinations that form the basis of Rubin's and Lalwani's recommendations are unlikely to have been given. An additional risk is posed by infection of the implant (1) with biofilm formation and potential need for removal of the implant. This makes it even more urgently necessary to assess intravenous antibiotic therapy for AOM—which exceeds the efficacy of oral antibiotics—in all seriousness and, wherever possible, to administer such treatment.

DOI: 10.3238/arztebl.2014.0545a

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In Reply:

We thank Aschendorff and Maier for the additions to our CME article and agree with the detailed recommendations from the article published by Rubin (1) in 2010, which we cited in our article. The main objective of our CME article was to explain how to distinguish uncomplicated AOM from AOM with complicating factors, and the subsequent, literature-based, presentation of the therapeutic approach in uncomplicated AOM in otherwise healthy patients. A detailed discourse of individually adequate therapy of AOM in patients with existing risk factors—which indubitably includes patients with cochlear implants—with all its particularities would have exceeded the scope and word count of this article and was therefore not our primary objective.

Everyone treating AOM absolutely has to be aware of the risks of AOM in CI patients in the form of threatening meningitis, implant infection, and, possibly, extrusion. All these necessitate immediate therapeutic intervention, especially in the form of immediate antibiotic treatment. Even though the existing literature on the topic does not go beyond evidence level IV (1–3), after the initial healing phase, two months after implantation surgery, intravenous administration of antibiotics will need to be assessed carefully in each individual case, and contact with the treating CI center should be established. In suspected purulent AOM, paracentesis enables not only drainage of the middle ear but also swabbing and microbiological analysis, and therefore rapid initiation of treatment with the appropriate antibiotic, based on resistance tests results; however, this must not delay the start of empirical treatment when a diagnosis of AOM is made in this patient group (2).

DOI: 10.3238/arztebl.2014.0545b

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Conflict of interest statement

The authors of both contributions declare that no conflict of interest exists.