

4th European Otolaryngology-ENT Surgery Conference

&

3rd International Conference on Craniofacial Surgery

August 15-17, 2019 Rome, Italy

Is there a reasonable body of evidence to discard mandatory brain imaging in acute mastoiditis ? A meta analysis

Nir Avrameto^{1,2}, Riad Khnifles^{1,2}, Lena Koren¹, Noam Yehudai^{1,2}, Roni Barzilai², Tamer Mansour^{1,2}, Michal Luntz^{1,2}¹Ear and Hearing Program, Department of Otolaryngology-Head & Neck Surgery, Bnai-Zion Medical Center.²Technion-Bruce Rappaport Faculty of Medicine, Haifa, Israel.

Introduction: Acute mastoiditis (AM) related intra-cranial complications (ICC) are prevalent and should be diagnosed and treated promptly. Infectious ICC are diagnosed using brain imaging and may be missed without it. Nevertheless most clinicians base their decision to perform brain imaging on clinical suspicion only. The aim of the study was to determine whether there is an association between rate of imaging performance and the diagnosis of ICC in AM.

Methods: Google scholar, PubMed, Medline, EMBASE, Web of science and Cochrane websites were searched from 1992 to 2017 (last search conducted on November 2017) using the key words: acute mastoiditis, otomastoiditis, imaging and intracranial complications in English only with no restrictions regarding age of patients.

Results: The database search yielded 1071 studies. 40 studies were found to be suitable for the meta-analysis. The rates of ICC were found to be significantly higher in centers where brain imaging was mandatory done, as compared to centers where brain imaging was performed 'as needed', based on clinical presentation. A typical clinical combination on which centers based their indication for imaging in AM patients was hard to elucidate.

Conclusions: Available publications (up to 2017) do not offer high grade clinical evidence based measures for defining the AM patient who is at a high risk for developing ICC. ICC are under-diagnosed in centers where brain imaging is performed in the minority (<50%) of AM patients, based on ad hoc clinical judgment only.

Biography

Dr.Nir Avrameto is 4th year Resident physician at Bnai-Zion Medical center in Haifa - Israel. Department of Otorhinolaryngology Head and Neck Surgery, affiliated with The Ruth and Bruce Rappaport Faculty of Medicine at the Technion (Israel Institute of Technology) Clinical tutor of medical students at their rotations in ENT. Graduated medical school from Sapienza university of Rome, La Facoltà di Medicina e chirurgia at 2013. Achieved his medical license in Italy at 2014 and in Israel at 2015. 2014 – Internship at Policlinico Umberto I hospital of Rome affiliated to the Faculty of Medicine and Surgery at the Sapienza Università di Roma, Italy. 2015 - Internship with elective rotation in Neurosurgery department at Rambam medical center in Haifa, Israel

nir.avrameto@b-zion.org.il

Notes: