

A study on the Effect of Acido Acetico (vinegar 2%) on Chronic Suppurative Otitis Media Using a Specially Designed Pipette (Ear Clean)

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Background: Chronic suppurative otitis media (CSOM) is an important cause of hearing loss in children and constitutes a serious health problem globally with a strong association to resource-limited living conditions. Topical antibiotics combined with aural toilet is the first-hand treatment for CSOM but antimicrobial resistance and limited availability to antibiotics are obstacles in some areas. The aim of this study was to investigate the effect of topical treatment with an antiseptic solution and with a specially designed pipette.

Methods: A bellows pipette was designed to enable suction and rinsing of the ear canal. A 2% vinegar was used as an antiseptic. The pipette was first used to aspirate discharge from the ear canal. A separate pipette was thereafter used to rinse the ear with vinegar, which was flushed into the canal. The procedure was repeated 2-4 times daily until the discharge ceased.

Results: Seventy patients were included in the study. The duration of discharge was 15-30 days in 5 cases, 1-6 months in 12 cases, 7-12 months in 10 cases and more than a year in 41 cases. Age was less than 10 years in 33 patients, 11-20 in 16 patients and above 20 in 21 patients. There were 45 males and 25 females. Follow up was possible in 60 patients. In 9 patients the treatment resulted in a dry ear within 5 days, in another 32 patients within 10 days and in 14 patients within 15 days. The treatment was stopped in one case who developed mastoiditis, one case with polyp in ear canal and in one case due to vertigo.

Conclusions: Local treatment of ears with chronic infection of the type suppurative otitis media (CSOM) with vinegar and a specially designed pipette proved to be an effective method to end the ear discharge. Whether the effect is permanent, we have not shown. Further research is needed to assess whether the use of the pipette (EarClean) and vinegar, if implemented in primary health care, could reduce the incidence of severe complications from chronic ear infections. The study will continue at the ORL clinic at Hospital Josina Machel and is planned to be implemented in primary care centers in Luanda.

Keywords: Chronic suppurative otitis media, topical treatment, suctioning and rinsing. bellows pipette, acetic acid 2% , vinegar 2%

