Conclusions

We conclude that S53P4 bioactive glass is safe and effective as obliteration material in both primary and revision surgery for chronic suppurative otitis media in children.

Objectives

In a previous study we demonstrated the superiority of S53P4 obliteration of the mastoid as compared to non-obliterated mastoidectomy in non-cholesteatomatous chronic otitis media in adults. The current study evaluates the safety and efficacy of mastoid obliteration using S53P4 bioactive glass granules in surgery for chronic suppurative otitis media in children. Clinical outcome was determined as infection control during follow-up using Merchant’s grading.

Methods

Retrospective follow-up study in children < 17 years. Age range was 9-17 years, the mean age was 12 years. A total number of 7 patients was primarily (n=3) or as a revision procedure after previous middle ear surgery (n=4) treated for chronic suppurative otitis media in the period 2015-2017. CT of the mastoid and middle ears was performed in all patients prior to surgery. A tympanomastoidectomy was performed with obliteration of the mastoid using S53P4 bioactive glass granules. Outcome was monitored with clinical otoscopy and otorrhea incidence measurement using Merchant’s grading.

Results

During a mean follow-up period of 9 months an acceptable dry ear (Merchant’s grading 0-1) was obtained in all patients.