In children, hypertrophy of the palatine tonsils can be a cause of obstructive sleep apneas, CO2 retention, and retarded growth. In such cases, tonsillectomy, which enables us to reduce the size of the tonsil tissue instead of removing otherwise healthy tonsils entirely, seems to be a safe and effective way of treating children with symptoms of tonsil hypertrophy.

METHODS AND MATERIALS

A total of 167 children (below 15 years of age), without any history of recurrent tonsillitis or of tonsil surgery, underwent radiofrequency tonsillotomy at 287-288 of the Department Oto-Rhino-Laryngology, Ystad Hospital, Sweden. The indications for surgery were hypertrophy of the tonsils associated with two or more of the following symptoms: heavy snoring, nocturnal sleep apnoea, dysphagia or speech impairment (i.e. thick guttural speech). One hundred and forty-eight (89%) of these children (72 girls and 76 boys; age-range 2-14 years) were available for a follow-up 2-26 months postoperatively.

RESULTS

The duration of postoperative follow-up was 2-25 months (mean 9 months and median 8 months). Complete relief or definite improvement was obtained in 91% (134/148) of the children with regard to their pre-operative symptoms of heavy snoring, nocturnal sleep apnoea, speech impairment, or dysphagia. A comparison between short-term and long-term follow-up as well as age at follow-up revealed the following results: complete relief or definite improvement was reported in 92% (33/36) of cases of short-term follow-up (3-6 months) and in 86% (30/35) of cases of long-term follow-up (13-25 months). A comparison of age at follow-up revealed the following results: 134 children with complete relief or definite improvement had a mean age of 5 years (range:2-14 years) and 14 children with no or insignificant improvement had an age of 5.7 years (range:2-10 years). A total of 5 children (3%) reported side-effects after the operation. The distribution of these side-effects was as follows: two cases of transitory nasal speech, one case of tonsillitis, one case of uneasiness and one case of gastroesophageal reflux. There were no cases of post-operative hemorrhage.

DISCUSSION

In this study children with symptoms of tonsillar hypertrophy, but no history of recurrent tonsillitis, were treated with radiofrequency-tonsillotomy to reduce the size of the tonsils instead of removing the entire tonsil tissue. Two to twenty-five months after surgery more than 90% of the children were completely relieved or definitely improved, irrespective of a short- or a long-term follow-up. This success rate is fully comparable to those reported for conventional tonsillectomy.1,4

Using radiofrequency technique to perform tonsillectomy in children with symptoms of tonsillar hypertrophy has been shown to cause less morbidity and pain as compared with conventional tonsillectomy. Furthermore, an influence on the immune system with reduced levels of immunoglobulins following tonsillectomy has been shown.12,13 Thus, in children with symptoms of tonsillar hypertrophy, and history of no recurrent tonsillitis, an appropriate tonsillectomy would be able to reduce the size of the tonsils with the radiofrequency technique.

Post-operative hemorrhage after conventional tonsillectomy has previously been reported in 0-5% of cases,14 as compared with no such cases, and no other serious post-operative complications, in the present study. This implicates radiofrequency-tonsillotomy to be a truly safe surgical method.