Histopathological examination of tonsillectomy specimens: Some discussions

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Sir,

We read with great interest the article by Adoga *et al.*,[1] regarding histopathological examination of tonsillectomy specimens. Although this report reveals useful information, there are some areas for discussion upon which we would like to expand.

First, the investigators classified their cohort into two groups: 35 children and 26 adults. The youngest patient in the children group was 1 year and 3 months, and the oldest was 16 years, a range of 1 year 3 months to 16 years. The youngest age in the adult group was 17, whilst the oldest was 50 years. The age ranges from 17 to 50 years. It is unclear why the authors used the age of 16 years old as the cut-off value between the two subgroups.

Moreover, it is generally accepted that the young adulthood begins after the age of 21 years. The age of 10–21 years is usually defined as "adolescence": early teens (10–14 years old), middle teens (15–17 years old), and late teens (18–21 years old).[2] Hence, the first subgroup in this cohort (the 36 children) should be named "*growing patients*" or "*paediatric patients*" instead, because it comprises not only children, but also early and middle teens.

Second, the investigators mixed the histopathological results of all specimens from the two groups together. This can skew their study results because the differences of the diseases between the two age groups. A recent analysis on 20,560 paediatric adenotonsillectomy specimens showed that only three patients (or 0.015%) had clinically significant diagnoses other than benign lesions (such as benign follicular hypertrophy): one glycogen storage disorder and two Burkitt's non-Hodgkin's lymphomas.[3] Tonsillar malignancy is extremely rare in growing patients, but seems to be more common in adult patients.[4,5] Harley[6] described 258 children who underwent routinely indicated tonsillectomy with an intraoperative description of tonsillar asymmetry. However, only 47 (or 18.2%) of 258 children had true tonsillar asymmetry by volume measurements, none of which had abnormal histopathological diagnoses. Hence, histopathological examination of routine tonsillectomy and/or adenoidectomy specimens may not be necessary, especially in young patients with no suspicion of malignancy. However, all patients must be carefully examined for evidence of malignancy before surgery.[5,7] It is, therefore, interesting for the Adoga *et al.*'s[1] study to separate the histopathological results between the age groups.

Third, the Adoga *et al.*'s[1] inclusion criteria were recurrent tonsillitis, obstructive sleep apnoea (OSA) and snoring, peritonsillar abscess and suspected tumours. It is not known how many specimens from patients with recurrent tonsillitis, OSA and snoring were included in this study. Almost all specimens from these patient groups: recurrent tonsillitis, OSA and snoring are benign follicular hypertrophy;[3-5,7,8] thereby, this can also skew the study results. The authors should classify the patients according to the chief complaints or reasons for surgery, for example, tumour *vs*. non-tumour groups, and paired them with the histopathological diagnoses.

Lastly, the authors concluded that routine histopathological examination of tonsillectomy specimens raised the treatment cost. It is, therefore, interesting to perform a cost-effectiveness analysis in the Nigerian healthcare system. In German and Thai public/teaching hospitals, routine histopathological examination of tonsillectomy specimens costs <5% of the whole treatment cost (tonsillectomy under general anaesthesia with hospitalisation for a few days): the average prices are 50 of 2000 Euro (3.5%) in Germany and 6 of 300 Euro (2%) in Thailand. Omitting routine histopathological examination can significantly reduce the total treatment cost ($P < 0.0001$ in Germany and $P = 0.03$ in Thailand). However, the patients in both countries do "*not*" need to pay for the treatment and the histopathological examination—all are covered by the national health insurance when the indications for tonsillectomy are met. In contrast, the treatment cost would exponentially increase when

the patients have tonsillar malignancy. Hence, the routine histopathological examination of tonsillectomy specimens is still recommended in these two countries, especially in adult patients.

In summary, the authors should clarify the cut-off value of age between the subgroups in their cohort. Had they used the patient's age (growing *vs*. adult patients) and reasons for surgery (tumour *vs*. non-tumour patients) as the predictor variables of the study to pair with the histopathological diagnoses, their study would have been strengthened. The cost-effectiveness analysis of routine histopathological examination of tonsillectomy specimens in the Nigerian or other African healthcare systems also merits further investigations.

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