

## **Regarding “Tonsillar microbial flora: A comparison of infected and non-infected tonsils”**

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Dear Editor

Study done by Bista et al in their article entitled “Tonsillar microbial flora: A comparison of infected and non-infected tonsils” published in Kathmandu University Medical Journal 2006, volume 4, number 1, issue 13 is outstanding. However we want to add certain points which need to consider in establishing causative organism and treating patients with tonsillitis with some healthy criticism. In the study, authors have taken 32 cases and 18 controls and are not clear whether the age matching was done in case and control groups. In a study done by Brook et al in 1995<sup>1</sup> comparing microbial flora of adults and children have findings suggesting that the etiology of recurrent tonsillitis in adults may differ from that in children. The differences in the tonsillar flora may be due to the effect of many more courses of antimicrobials given over the years to adults and the changes in tonsillar tissue that occur in this age group. Similarly, it is important to note that the causative organism may differ in acute and recurrent tonsillitis and also in otherwise healthy children as compared to always ailing children ( Marushko et al 1999)<sup>2</sup>. Their studies have shown development of dysbacteriosis, decrement of tonsil colonization resistance in always ailing children. It is *Staphylococcus aureus* which is more commonly isolated in these children as compared to the normal. Furthermore, several studies have shown that there is strong association between *H. influenzae* and recurrent acute tonsillitis and tonsillar hypertrophy. This is a fact which needs to be considered in designing and implementing therapeutic measures.

Similarly there have been many controversies about the reliability and adequacy of throat swab itself in reflecting pathogens as compared to core pathogens in tonsillitis. Throat swabs grow only organisms commensal to upper respiratory tract; however the

deep tonsillar tissues excised carry significant growth of pathogenic organisms. Brook et al<sup>1</sup> in their study data showed discrepancies between surface and core cultures in the isolation of anaerobic bacteria, and raised the question whether surface cultures can accurately predict the presence of B-lactamase producing organisms as other pathogens in recurrently infected tonsil. Deep cultures from core have shown high incidence of *H. influenzae* and *Staph aureus* which was rarely reflected on surface cultures. More recently role of core aspiration has been highlighted as a superior and more reliable outdoor procedure in obtaining core organisms in cases of tonsillitis (Kurien et al 2003)<sup>3</sup>. The aspirates in corresponded closely with those of tonsillar core both qualitatively and quantitatively, while surface swab was of limited value in predicting the core bacteria.

All the above studies emphasize that throat swab alone be of limited value in predicting the pathogens causing tonsillitis. The rational of treating tonsillitis medically should be based on knowledge of common core pathogen.

### **References**

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