## Discussion

The prevalence of torus palatinus and torus mandibularis of both TMD patients and control group was higher than in most studies of different races<sup>3,14</sup>. This may be the effect of hereditary and environmental factors. From this study, there is no significant difference between TMD patients and controls according to sex or mean age. The prevalence of TP of TMD patients was not significantly different (p=0.2) form that of the control group. In case of TM, the prevalence was significantly higher (p<0.0005) in TMD patients than in control group demonstrating that there is an association between the prevalence of TM and TMD. This confirms the study of Clifford et al.<sup>27</sup>, which was limited to 24 subjects.

The present study demonstrates that TMD patients have significantly higher prevalence (p<0.0005) of parafunctional activities (clenching, grinding teeth and/or bruxism) than the control group. This is similar to the study of Rugh et al. and supports the role of parafunctional activities in the etiology of TMD.

From the above, TMD patients had higher prevalence of parafunctional activity and TM than did the controls. This may be the result of abnormal forces from the activity, reflect the stresses within the mandible resulting in outgrowth of TM and the etiology of TMD. Longitudinal studies are needed to prove the association.

The size of TM in TMD patients was assessed by single measurement of the maximum lingual thickness of TM, if present, and was recorded as small (<2 mm), medium (2-4 mm) or large (>4 mm)<sup>15</sup>. No relationship could be detected between size and dysfunction index or anamestic index. This may be because both TMD and TM are multifactorial in origin. Abnormal forces from parafunctional activities may be the only coincidental in the etiology of both TMD and TM, so longitudinal observations and a large-sample are needed to investigate the mechanism of development of TM and the sign of TMD.