

## Materials and Methods

This case-control study was conducted in the Dental Hospital, Faculty of Dentistry, Prince of Songkla University, which is the only dental school in southern Thailand. Fifty-nine consecutive patients attending the Temporomandibular Disorders Clinic were included in the study as cases. All TMD patients met the criteria of the American Academy of Craniomandibular Disorders<sup>17</sup>. Patients were examined between March and October 1997. Patients comprised 13 men and 46 women, aged from 13 to 62 years with a mean age of 31.8 (S.D. = 11.9) years.

The control group consisted of 353 patients attending the Primary Treatment Unit or the Oral Diagnostic Clinic. The control group consisted of 112 men and 241 women, aged from 12 to 80 years with a mean age of 33.0 (S.D. = 14.5) years. These patients attended for emergency dental treatment or routine dental care. All were clinically examined extra- and intraorally and had no signs or symptoms of temporomandibular disorders. All patients were asked whether they realized they had bruxism, facial muscle stiffness or fatigue upon awakening, or were informed about

grinding sound during sleep by their partners or others. They were also asked about clenching or grinding teeth during the day-time. This was confirmed by clinical examination of excessive occlusal wear and masseter muscle hypertrophy<sup>20</sup>. All patients agreed to participate in the study.

Torus palatinus and TM were assessed as present when a painless bony swelling in the palate and in the lingual area of the premolars respectively could be visualised and palpated. The size of tori was recorded by measuring the greatest thickness in a lingual direction<sup>15</sup>. The severity of the disorders of TMD patients were also recorded according to the Helkimo's dysfunction and anamnestic index<sup>21</sup>. A chi-square test of significance was used to compare the prevalence of tori in TMD and control subjects, as well as the Helkimo's index and the size of TM. The association between TM and TMD was examined further by using logistic regression (Stata Corp 1997 Stata Statistical Software: Release 5.0 College Station, TX : Stata Corporation).