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*Bruxism: A Novel Diagnostic Approach*

Bruxism is the involuntary grinding and/or clenching of teeth, which is characterized by contractions of the jaw muscles and development of forces high enough to excessively burden the masticatory system. Since bruxers are usually unaware that they grind their teeth, this condition often goes undiagnosed until irreversible damage occurs. Although extensive research has been conducted on this topic, there is currently no objective and cost-effective clinical diagnostic method for assessing bruxism. Most of the time, bruxism is still only diagnosed based on clinical examination and patient history. With the aid of an original device (a novel bite force recorder), this study explored the existence of a correlation between individuals' maximum bite force (MBF) values and bruxism. The results of this study showed that MBF values recorded for bruxers (967N for males and 740N for females) were dramatically higher than those for non-bruxers (611N for males and 459N for females). Since occlusal guards help masticatory muscles relax and lose their hyperactive status, splint therapy is the standard procedure for treating bruxism. The present study demonstrated that MBF values recorded for bruxers after four weeks of splint therapy decreased by 27% for females and 23% for males. These results support the hypothesis that measuring the MBF could provide useful data for the evaluation of jaw muscle function and activity, and MBF values could be instrumental in diagnosing bruxism. With bruxism being on the rise, further research is required to develop easier and more effective methods to diagnose this condition.