Nutrition Disorders and Cognitive Functions in TMD Elderly Patients

Objectives: The aim of this study was to show the destructive effects of abnormal occlusal forces on teeth and on implant supported prostheses in patients with bruxism and temporomandibular disorders (TMD), abnormal habits and other parafunctions, focusing on concepts and the clinical procedures to reduce the potential risk factors for tooth loss and implant failure.
Methods: 40 TMD patients were compared to 40 no-TMD patients in which were inserted 430 implants with the same features as number, size, position, design. Another experimental group of 50 TMD patients treated by prevention protocol was assessed. Were considered type of restoration, cemented or screwed, malocclusion type, smoking, load timing. The heavy force of compression, clenching and grinding, as in bruxism, simultaneously applied strong pressures to the teeth implants, crestal bone, restorations and temporomandibular joints. This was a potential risk factor for crestal bone loss, dental and implant complications.
Results: The 5 years follow-up showed a 58% of soft tissues, bone and prosthetic complications in TMD patients versus a 11% in non TMD patients ($P< 0.01$). When TMD patients were undergone to occlusal overload prevention protocol, the complications were diminished to 13% ($P< 0.01$). Increasing the number of implants and reducing cantilevers decreases the stress; using the longest and widest implant possible increases implant/bone surface area and reduces also strain. Also implant design, occlusal table size, the direction, duration and magnification of the forces influences the stress at the crestal bone/implant surface.
Conclusions: Developing treatment plan that control the chronic bruxism through night-guards and an occlusal adjustment protocol to modify the occlusal forces on implants and their restorations, even patients with temporomandibular disorders and bruxism can be candidates for implants. Maintaining a healthy natural and implant dentition in elderly is beneficial from a functional and psyche-social point of view.

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