at the tooth cervix. This loss can be caused by different physical and/or chemical agents. One of the causes of NCCL can be occlusal stress, which lead to tooth flexure and loss of enamel at the cervical area. In different types of occlusion there are numerous lateral eccentric movements that can cause NCCL.

The purpose of this study was to determine differences in the frequency of NCCLs between patients with different occlusal conception.

METHODS AND RESULTS: The study involved 815 persons over the age of 10 years, chosen at random. The cervical third of the vestibular surface of the upper and lower teeth was clinically examined. NCCLs were measured with plus and minus. The type of occlusal conception was established by clinical examination and classified as canine guidance, group function and combined occlusion.

The results showed that the NCCLs were equally participated in both sexes, and in all three types of occlusion (Chi-square values were 1.96, df=2, p>0.05).

CONCLUSION: The results of the study indicate that there is no statistically significant difference in the frequency of NCCLs between patients with different occlusal.

61. The EMG Activity of Masticatory Muscles During Different Chewing Tasks

Valentić-Peruzović M1, Illeš D1, Alajbeg IZ1, Babara M2, Ćelebić A1, Juros V.2
1Department of Prosthodontics, School of Dental Medicine University of Zagreb, Croatia
2Medical Centre, Šibenik, Croatia

Mastication is a highly coordinated neuromuscular function that involves fast effective movements of the jaw and continuous modulation of muscle force. To understand the relationship between muscles during mastication it is necessary to know the position and direction of movement of the mandible.

MATERIAL AND METHODS: Twenty-four young healthy adults, age ranged 17 to 27, participated in this study. They were chosen among dental students of School of Dental Medicine University in Zagreb and had to be free of sign and symptoms of TMD.

Surface EMG recordings were obtained from left and right anterior temporal muscle, left and right masseter muscle and from left and right digastric muscle on the 8 channel PC based EMGA-1, apparatus for simultaneous recording of myoelectrical activity (6 differential EMG channels, input impedance 100 MW, CMRR> 95 dB at 50 Hz, bandwidth 2 Hz-1 kHz, programmable input sensitivity from 100mVpp to 20 mVpp, an 8 bit resolution A/D conversion, 2 kHz sampling rate) - occlusal sounds (2 audio channels), specially designed and developed for the purpose of kinesyological examinations of stomatognathic system’s function. The disc electrodes (Ag/AgCl, diameter 10 mm) were placed 2 cm apart in the main direction of the muscle fibres.

RESULTS:

1. Main effect of factor "functional movement" was significant at p<0.01, and values were the highest for gum chewing, and the lowest for empty chewing except for digastric muscle which had lowest values at continuous isometric contraction.

2. Main effect of factor “muscles” was significant at p<0.01 for all muscles involved, values were similar for the same muscles on left and right side.

3. Main effect of factor “time” was statistically significant p<0.05 for all cases showing decreasing trends except in last minute during functional movements.

4. Interactions between factors “functional movement” and “time” were present at significance p<0.01.


Alajbeg IZ1, Valentić-Peruzović M1, Illeš D1, Alajbeg I2, Knezović-Zlatarić D.1
1Department of Prosthodontics, School of Dental Medicine University of Zagreb
2Department of Oral Medicine, School of Dental Medicine University of Zagreb, Croatia

Improving retention and stability of complete dentures is of considerable interest in prosthetic dentistry. Approaches to this problem over the years have included overdentures, implants and denture adhesives. Although