relationship of the dentition in static and dynamic occlusion, with establishing *canine guidance*, as well as *canine protection* or *group guiding function* on the latero-trusive side, and lack of premature occlusal contacts. The second stage implied prosthetics.

Due to the treatment, premature occlusal contacts were eliminated in all cases. The occlusiogram index went up from 38.50 ± 3.50 to 71.29 ± 1.90 conventional units ($p < 0.05$). The *canine guidance*, the *canine protection* and the *group guiding function* were restored in 85.2% of patients.

Conclusion. Given the above, in adult patients, distal occlusion caused by dentition defects facilitates the development of more severe occlusion disturbances — there is a decrease in the number of antagonizing teeth pairs as well as in the occlusal contacts area; a disturbed teeth joining in the static and dynamic occlusions, while the *canine guidance*, the *canine protection* and the *group guiding function* are affected, too. The orthopedic treatment resulted in restored occlusal relations of the dental rows as well as led to an increase in the occlusiogram index up to 71.29 ± 1.90 conventional units ($p < 0.05$), which showed improvement in the parameters that point at optimal occlusal relations.

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FUNCTIONAL STATUS OF MASTICATORY MUSCLES AT OCCLUSION DISTURBANCES ACCOMPANIED WITH DISPLACED MANDIBLE

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Occlusion disorders accompanied with a displaced mandible lead to a change in the tem-poromandibular joint topography and the function of the masticatory muscles affecting their co-ordinated activity. The functional disorders severity in the masticatory muscles, their nature as well as the dynamics through the treatment can be reliably controlled via electromyographic study [1–6].

Aim. To carry out an evaluation of the electromyographic activity of the masticatory muscles in adults with dentition defects complicated with distal occlusion, depending on the muscular-articular dysfunction degree.

Materials and methods. The study implied identifying functional status of the masticatory muscles in 180 patients aged 20–55, who had dentition defects complicated with distal occlusion. The comparison group included 107 people with an orthognathic bite and with no defects in the dentition. The degree of functional disorders was determined subject to M. Helkimo's clinical dysfunction index. The electromyo-

graphic activity of the masticatory muscles was studied with the electromyography interference method employing the Neuromyan electromyography, Model 4 01. The examination was focused on the activity of the masticatory, temporal and suprahyoid muscles at ground state of the lower jaw, at dentition compression, as well as at voluntary and set chewing.

Results and discussion. The electromyographic study showed coordinated activity of the masticatory muscles with no sign of spontaneous activity at rest in the comparison group. At compressed dentition, the amplitude of the biopotentials of the masticatory muscles in the central occlusion position was 599.82 ± 10.93 microvolts (μV); of the temporal ones — 425.96 ± 6.03 μV, and in the suprahyoid muscles — 394.48 ± 5.89 μV.

In patients with dentition defects complicated with distal occlusion, a comparison of the masticatory biopotentials amplitude revealed average data typical of mild, moderate and severe dysfunction. In case of a mild dysfunction, for instance, the biopotentials amplitude of the masti-catory and the temporal muscles turned to be reduced down to 548.53 ± 7.85 μV ($p < 0.001$) and 400.44 ± 4.41 μV ($p < 0.05$); at a moderate degree – to 465.59 ± 8.88 mkV ($p < 0.001$) and 358.73 ± 5.31 μV ($p < 0.001$); at a severe degree – down to 368.62 ± 10.89 μV ($p < 0.001$) and 331.89 ± 4.31 μV ($p < 0.001$), respectively. During that, the biopotentials amplitude of the suprahyoid muscles went up — to 412.21 ± 2.85 μV ($p < 0.05$) at a mild dysfunction; up to 443.56 ± 3.88 μV ($p < 0.001$) at an average degree of dysfunction, and to 470.94 ± 3.81 μV ($p < 0.001$) at a severe one. Besides, electromyograms done when the lower jaw was in the state of relative ground state (physiological rest) revealed spontaneous activity of the masticatory muscles, which reached 100 μV, while during mastication the rhythmic alteration between the bioelectrical activity and rest phases in the masticatory muscles was disturbed.

Conclusion. The above has shown that an electromyographic study performed on adult pa-tients suffering from dentition defects complicated with distal occlusion allowed revealing reduced a decrease in the biopotentials amplitude of the masticatory and temporal muscles, along with an increase in the biopotentials amplitude of the suprahyoid muscles at dentition compression. At the same time, there has been a connection identified for the biopotential amplitude of the masticatory muscles, typical of mild, moderate and severe degrees of muscular-articular dysfunctions.

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CLINICAL IMAGE OF TEMPOROMANDIBULAR JOINT DYSFUNCTION IN PATIENTS WITH DENTITION DEFECTS COMPLICATED WITH DISPLACED MANDIBLE

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