

Abstract

This thesis focuses on the comparison of results of dental and kinesiological examination, medical history, PHQ-4 questionnaires and X-rays between a group with symptoms of temporomandibular disorder and an asymptomatic group. The theoretical part summarizes anatomy and kinesiology of the temporomandibular joint and also epidemiology, etiology, symptomatology, classification, examination and treatment of temporomandibular disorders. The main goal was to compare differences between the two groups in muscle tenderness or pain on palpation, range of active depression of the mandible and active dorsiflexion of the cervical spine.

Methods: A total of 30 patients were included in the study, out of which 18 were in the symptomatic group (mean age 44.8, SD \pm 11.6 years) and 12 in the control group (mean age 36.9, SD \pm 13.9 years). The participants underwent a clinical examination, which consisted of thorough collection of medical history, dental and kinesiological examination and X-rays (anteroposterior, lateral, panoramic), the participant also filled in the PHQ-4 questionnaire.

Results: Muscle tenderness or pain on palpation in the symptomatic group was significant ($p = 0.019$). There was not a significant difference in depression of the mandible between the groups ($p = 0.26$). Range of active dorsiflexion of the cervical spine was significantly increased in the asymptomatic group ($p = 0.014$). The following positive medical history data were statistically significant: previous surgery ($p = 0.024$), problems with peripheral joints ($p = 0.024$), knee pain ($p = 0.024$), cervical spine pain ($p < 0.001$), low back pain ($p = 0.018$), problems with depression of the mandible ($p < 0.001$). Further significant objective parameters were: deviation of the skeletal midline ($p = 0.024$), decreased flexion of the hip joint bilaterally ($p = 0.006$ right side, $p = 0.036$ left side), increased occurrence of degenerative changes of the cervical spine ($p = 0.024$) and of the temporomandibular joint ($p = 0.007$). There was not a significant difference in the results of the PHQ-4 questionnaire ($p = 0.665$).

Conclusion: Patients with symptoms of temporomandibular disorders have significantly more muscle tenderness or pain on palpation, decreased dorsiflexion of the cervical spine and decreased flexion of the hip joints bilaterally. There was not a significant difference in the depression of the mandible or any other ranges of movement of the cervical spine or the mandible. Symptomatic patients are also more likely to have previous surgery or current problems with peripheral joints, knee pain, cervical spine pain,

lower back pain and problems with mouth opening. They also have significantly more skeletal midline deviation and degenerative changes of the cervical spine and the temporomandibular joint. There was not a significant difference in the results of the PHQ-4 questionnaire. Examination and treatment of temporomandibular disorders requires comprehensiveness and inter-field collaboration.