

Efficacy of selective grinding guided by an occlusal splint in management of myofascial pain: A prospective clinical trial

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Background: For patients whose centric relation (CR) has not been considered at the start and during treatment, the task of achieving an occlusal scheme that works together with the temporomandibular joint, the muscles, and the structures of the stomatognathic apparatus becomes a major concern. **Objective:** This study aims to describe a reproducible, predictable and to date unreported procedure of selective grinding guided by an occlusal splint and to analyze condylar position (CP) based on the skeletal pattern. **Methods:** A total of 72 symptomatic patients (38 females and 34 males) were classified into three groups: hyperdivergent, intermediate and hypodivergent. CP was quantified by mounted casts on a measures condyle displacement (MCD) device. Helkimo index was also performed in order to assess the severity of the temporomandibular joint (TMJ) disorders attending to clinical dysfunction, occlusal state and anamnestic dysfunction. Once the stability had been obtained, the splint was progressively reduced until the maximum intercuspation (MIC) was achieved. **Results:** The vertical displacement was found to be significantly different between the hyperdivergent and other two groups ($p < 0.01$). Comparisons of MCD analysis before

and after the selective grinding procedure identified a statistically significant difference in the horizontal and vertical CP ($p < 0.01$) between the different groups whereas the Helkimo Index showed a clear improvement of TMJ disorders. Conclusion: All facial types, specially the hyperdivergent face type, showed a reduction in condylar displacement (CD) and less craniomandibular symptoms using this procedure, making it an excellent technique for clinicians. ©

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Occlusal splint

Occlusion

Selective grinding

Temporomandibular disorder