

Evaluation of a mechanical stretching device for patients with trismus and neuromuscular disorders

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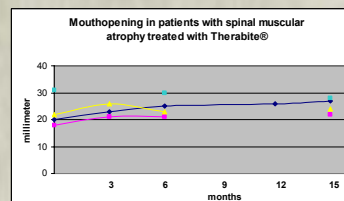
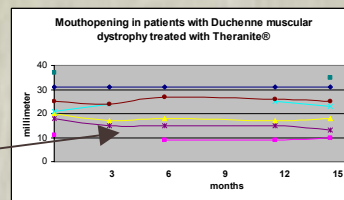
Background

The inability to open the mouth completely (trismus) is a feature that develops in several of the neuromuscular disorders although not often described. Severely reduced mobility of the jaw affects the patient's ability to chew, swallow and to maintain oral hygiene. Sufficient mouth opening is also important for dental care. TheraBite® is a stretching device for anatomically correct stretching and passive motion of the jaw musculature, associated joints, and connective tissues.



Results

The patients with SMA increased their mouth opening and preserved their results through the treatment period. One patient with DMD increased mouth opening, two patients with DMD preserved mouth opening while in four patients with DMD mouth opening reduced slightly during the treatment period. Several of the patients found it easier to eat and to brush the teeth after stretching with TheraBite®. No patients experienced pain. TheraBite® did not affect the occlusion.

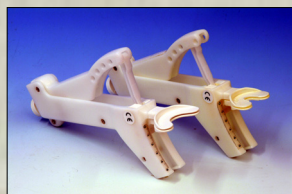


Aim of the study

The aim of the study was to evaluate if TheraBite® was an effective mechanical stretching device for patients with trismus and neuromuscular disorders.

Material and Methods

At a national orofacial resource center in Göteborg three patients with SMA II (23, 27 and 62 years of age), one patient with SMA III (17 years of age) and seven patients with DMD (19 - 41 years of age) were treated with TheraBite® for 15 months. The stretching treatment was constructed to include ten repetitions daily – where each repetition should have a duration of 30 seconds. Diaries were also used to record if the stretching programme had been performed. Maximal interincisor opening was measured to evaluate the results.



Conclusion

To our knowledge this is the first study on treatment of trismus in neuromuscular disorders. Since life span has increased in several of these disorders and trismus severely affects health and quality of life - more attention should be paid to these symptoms and treatment.