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Palatal expansion and postural evaluations in bilateral crossbite: preliminary data

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Aim of the work

The aim of this study is to evaluate the correlation between body-posture and dental occlusion. The demonstration of the existence of a real association of these conditions could furnish a sprout for a correct therapeutic approach

Materials and methods

A total of 4 healthy patients with bilateral crossbite, aged from 7 to 10 years, were enrolled in this study. Each patients underwent a stabilometric examination before and after palatal expansion . The tests were conducted on a "BioPostural System" stabilimetric platform. In order to analyze patients' posture it was considered the distribution of the weights, the change of position of the centre of pressure in Cartesian reference system and the variation of the barycenter from its middle value.
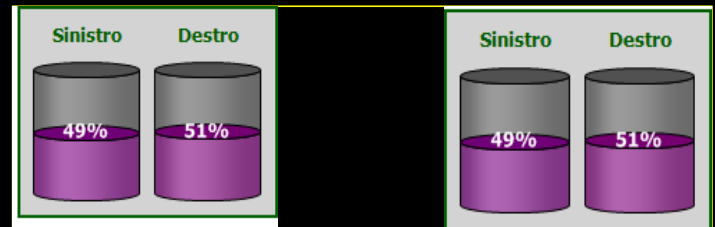
Stabilometric examination

Load's distribution

Frontal view

before

Sinistro 49% Destro 51%

after

Sinistro 49% Destro 51%
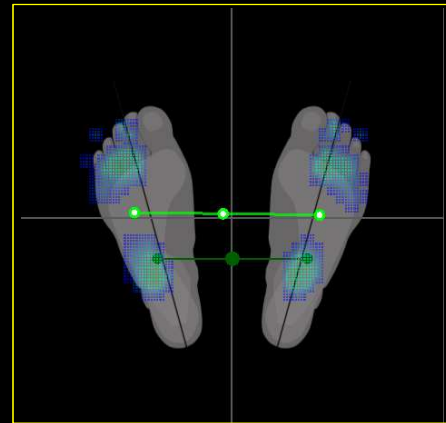
Results

Although the group of the study is small and so not statistically significant, it is possible to see that no to so many modifications in load distribution were registered through by the use of palatal expansor. Maybe it indicates that the better occlusal balance in patients with bilateral crossbite could generate a equally harmonious load distribution.

Conclusions

The valence of therapeutic stabilometric platform should be confirmed by larger trials and long-term follow-up, because the number of patients examined is not just anought significant.