Scoliosis

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Modified Lyon brace: with antero-lateral pressure to allow Kyphosis

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Background

In the 50's, Pierre Stagnara introduced the « lyon treatment ». It included an Abbott plaster cast, followed by a Lyon brace.

Aim

Can 3D analysis help us today?

Methods

Lyon braces are designed as Abbott plaster casts. Using a study on plaster cast, and 3D analysis, (called « is Abbot cast still relevant today? » by Dr. Jean Claude Bernard, from the Massues center in Lyon, presented at the SOSORT 2011), we decided to modify a Lyon brace. If a plaster cast is modified, in order to improve sagittal plane by inverting band, and so having antero lateral push in the thoracic part, instead of a classical postero lateral push, the design of the Lyon brace used for the same patient will have an antero lateral pad too.

Results

The improvement of sagittal plane shown is maintained with the modified Lyon brace

Conclusion

Introducing 3D analysis, in the design of braces, seems as relevant to maintain sagittal plane as shown last year for plaster cast.

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Reference

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