

Improvement in Coronal and Sagittal Balance and Stabilisation of Cobb Angle in Adult De-Novo Scoliosis



Using ScoliBrace®. A Case Series.

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BACKGROUND

Primary Adult De-novo Degenerative Scoliosis represents a new scoliosis developing in patients with no prior history of spinal curvature. Characterised by asymmetric intervertebral disc and facet joint degeneration, this combination can lead to coronal and sagittal spinal imbalance. This may result in severe pain, neurological deficits and impaired function, thus significantly reducing the quality of life. Primary degenerative scoliosis has an average progression rate of 3 degrees per year which can further exacerbate deterioration of spinal balance. This case series investigates the use of ScoliBrace® as a non-surgical treatment approach of adults with primary degenerative scoliosis.

OBJECTIVE

To report the outcomes of the use of ScoliBrace® in five patients with Primary Adult Degenerative Scoliosis.

METHOD

A cohort of 5 patients with progressive primary degenerative scoliosis, aged 64-83 years, were prescribed a full length standard ScoliBrace®.

The patients were prescribed a part-time bracing regime, averaging between 4-8 hours per day in the ScoliBrace. Every ScoliBrace® was custom made for the individual.

The treatment approach lasted at least 12 months, with follow-up appointments at the 1 month (in-brace X-ray and fit check), 3 month, 6 month and 12 month mark.

Out-of-brace Cobb angles, coronal balance, sagittal balance were measured at the initial, 6 month and 12 month follow-up appointments and analysed.

RESULTS

Cobb angle was stabilised, and coronal balance improved in all patients.

Sagittal balance was improved or stabilised in all patients. TRACE scores were improved 4/5 patients.



CLINICAL SIGNIFICANCE

The ScoliBrace® may provide a useful treatment option for patients with Primary Adult Degenerative Scoliosis for improving coronal and sagittal balance and stabilisation of Cobb angles. This has the potential to reduce pain levels, and improve function and quality of life of patients with primary degenerative scoliosis and should be further investigated in future research.