

# SINGLE STAGE POSTERIOR PASSIVE CORRECTION (SSPPC) AND FUSION IN PATIENTS WITH CONGENITAL SCOLIOSIS

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## **Background:**

SSPPC without resection of the congenital abnormality can be a safer alternative to treat patients with congenital scoliosis

## **Objective:**

To describe the outcomes of SSPPC using pedicle screws.

## **Methods:**

Thirty-four patients with congenital scoliosis corrective surgery performed in a single center from 2008-2016 were reviewed. The follow-up was 1 to 11 years. Parameters such as age, gender, height, weight, body mass index (BMI), types of congenital anomaly, number of level fused, duration of surgery, blood loss, Cobb angle, regional kyphotic angle, coronal balance, sagittal vertical axis and complications were analysed.

## **Results:**

The mean age, height, weight and BMI were  $14.6 \pm 3.4$  year,  $149.1 \pm 11.1$  cm,  $47.3 \pm 11.8$  kg and  $21.5 \pm 6.5$  respectively. Number of fusions ranged from 6 – 17 levels. Mean duration of surgery was  $209.0 \pm 69.5$  min and blood loss was  $1145.3 \pm 608.8$  ml. Preoperatively, mean Cobb angle was  $66.3 \pm 17.1^\circ$  and regional kyphotic angle was  $39.8 \pm 20.7^\circ$ . There were 6 (17.6%) patients who had coronal balance more than  $\pm 20$ mm preoperatively. Postoperative Cobb angle correction was 44% and regional kyphotic angle correction was 20%. Postoperative complication rate was 10.8% which includes: 1 severe intraoperative blood loss, 1 broken rod and 2 adding on. None of the patients had coronal decompensation.

## **Conclusion:**

SSPPC is relatively safe for treatment of patients with progressive congenital scoliosis.