

## PERIOPERATIVE OUTCOMES OF ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS) PATIENTS OPERATED WITH THE DEDICATED SPINE TEAM APPROACH IN THREE CONSECUTIVE CASES IN A DAY

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### Background:

A dedicated surgical team approach had been established to improve operating theatre (OT) efficiency. Nevertheless, the perioperative outcomes of adolescent idiopathic scoliosis (AIS) patients operated with an enhanced OT efficiency in consecutive cases remained unclear.

### Objectives:

To highlight the perioperative outcomes of AIS patients operated by the dedicated spine team approach in a consecutive case operation list.

### Materials and methods:

Three AIS patients operated in a day (8:00AM to 8:00PM) between the years 2021 and 2022, by the dedicated spine team were recruited. Patients were classified according to sequence of surgery (Case 1, Case 2, and Case 3). The dedicated spine team was made up of three senior spine consultants who operated using a dual attending surgeon strategy, an anaesthetic consultant, dedicated surgical scrub nurses, anaesthesiology nurses, radiographers, and neuromonitoring technicians. OT efficiency was represented by five stages of OT time (pre-operative time, operative time, post-operative time, total OT time, and turnover time). OT efficiency and perioperative outcomes across the three groups of patients were analysed.

### Results:

102 cases were analysed. On average, Case 1 started by 8:38AM and Case 3 ended by 5:54PM of the day. Mean major Cobb angle was  $63.3 \pm 15.5^\circ$ . Mean pre-operative, operative, post-operative, and total OT time were  $37.3 \pm 5.2$ mins,  $123.0 \pm 28.1$ mins,  $15.0 \pm 8.2$ mins, and  $174.8 \pm 29.7$ mins, respectively. Mean turnover time in this study was  $15.1 \pm 13.5$ mins. Case 1, Case 2, and Case 3 demonstrated comparable OT timing in all stages and perioperative outcomes ( $p > 0.05$ ). Mean intra-operative blood loss was  $638.2 \pm 252.5$ mL and none required blood transfusion. Intra-operative arterial blood gas parameters were maintained in an optimal range. Complication rate was 2.0%.

### Conclusion:

Consistent OT efficiency can be demonstrated with the dedicated spine team approach without compromising patient care.