Table 1: Comparison of desflurane and sevoflurane groups (normal side)

	Normal side		P
	Desflurane	Sevoflurane	
VMCA			
Baseline	40.8 (10.1)	42.9 (11.8)	0.548
0.5 MAC	38.0 (13.8)	38.9 (11.3)	0.820
1 MAC	37.9 (13.6)	32.8 (9.6)	0.185
THRR			
Baseline	1.32 (0.26)	1.26 (0.12)	0.367
0.5 MAC	1.25 (0.17)	1.25 (0.10)	0.980
1 MAC	1.18 (0.27)	1.21 (0.08)	0.692

VMCA: Velocity in the middle cerebral artery, MAC: Minimum alveolar concentration

Table 2: Comparison of desflurane and sevoflurane groups (tumour side)

	Tumour side		P
	Desflurane	Sevoflurane	
VMCA			
Baseline	43.3 (13.0)	47.5 (19.1)	0.425
0.5 MAC	36.8 (13.2)	39.4 (14.3)	0.554
1 MAC	36.6 (12.3)	35.7 (10.8)	0.802
THRR			
Baseline	1.16 (0.18)	1.26 (0.20)	0.125
0.5 MAC	1.20 (0.27)	1.22 (0.17)	0.742
1 MAC	1.19 (0.19)	1.18 (0.12)	0.850

VMCA: Velocity in the middle cerebral artery, MAC: Minimum alveolar concentration

pre-operative Glasgow coma scale of 15 coming for elective surgery were included in the study. After a steady state of flow velocity (FV) recording, transient hyperaemic response testing was done on both sides. The patient was intubated, and inhalational anaesthesia (sevoflurane or desflurane) was introduced. FV and THRR measurements were repeated at 0.5 and 1.0 minimum alveolar concentration (MAC) concentrations. **Results:** Comparison from baseline to 0.5 MAC and 1 MAC in each group – There was a significant decrease in mean FV (mFV) from baseline to 1.0 MAC in both groups. Comparison between tumour side and normal side – A comparison of velocity in the middle cerebral artery between the tumour side and normal side showed no significant differences at baseline, 0.5 MAC and 1 MAC in both desflurane and sevoflurane groups. The THRR showed a statistically significant reduction on the normal side of the desflurane group ($P=0.49$) but was not significantly different on the tumour side. In the sevoflurane group, THRR was not significantly different

on tumour side and normal side. **Comparison Between the Desflurane Group and Sevoflurane Group:** The middle cerebral artery mFVs and THRR were not significantly different between desflurane group and sevoflurane group. **Summary:** There were no clinically significant differences in cerebral haemodynamic effects of desflurane and sevoflurane at 0.5 MAC and 1 MAC in patients with supratentorial tumours, without features of raised ICP at normocapnia.

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Effect of tranexamic acid on blood loss and transfusion requirements in lumbar spine fixation

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Introduction: Lumbar spine surgery in adults is associated with significant blood loss, often requiring allogeneic blood transfusion. The objective of this study was to evaluate the efficacy of tranexamic acid (TXA) in reducing perioperative blood loss and transfusion requirements in patients undergoing lumbar spine fixation. **Methodology:** Sixty adult patients were randomised to receive either a bolus of 10 mg/kg intravenous of TXA after induction followed by a maintenance infusion of 1 mg/kg/h of TXA up to closure of skin or an equivalent volume of normal saline. Outcome measures included perioperative blood loss, amount of blood transfusion, as well as post-operative haemoglobin, and haematocrit levels. The data were analysed by means of Statistical Package for Social Science version 12.0. The results were presented as mean $\pm$ standard deviation. Independent Student's *t*-test was used to compare the two groups and differences were considered statistically significant if the *P* value was < 0.05 . **Results:** The mean intraoperative blood loss and the amount of blood in the drains post-operatively were less in the TXA group compared to the placebo group ($P=0.0001$). The blood transfusions received in both the groups was not statistically significant ($P=0.362$). However, clinically there was reduction of transfusion requirement in the TXA group. The drop in post-operative haemoglobin levels was statistically significant in the control group as compared to TXA group ($P=0.002$). The mean duration of surgery was less in TXA group compared to the control group ($P=0.008$). **Conclusion:** Thus, TXA is effective in reducing peri-operative blood loss and transfusion requirements. Furthermore, TXA administration was not associated with any significant complication including DVT.