Background and Aims Spine surgery is a complex and traumatic intervention that require sufficient anaesthesia supplementation. Erector spine plane block (ESPB) is an effective method of reducing pain intensity, but there is insufficient data on its effect on hemodynamic parameters, blood loss (BL) and possible complications. Aim. Compare the impact of anesthesia with ESPB and without on amount of opiates, BL, infusion therapy (IT), intensity of pain, study the consequence of two methods of anesthesia on hemodynamic parameters, time of weaning from ventilation (TWV) and duration of hospitalization (DH).

Methods 151 patients which underwent spine surgery were divided into groups: G1 – general anaesthesia with ESPB, G2 – general anaesthesia alone. Outcomes: intensity of pain at rest (IPR) and movements (IPM) after surgery, DH, TWV, amount of fentanyl used intraoperatively and morphine postoperatively, mean arterial pressure (MAP), heart rate (HR), BL, diuresis, and IT during surgery.

Results IPR, IPM were lower (p< 0.01) in G1 (figure 1). DH, TWV were longer (p< 0.01) in G2 (14.09±7.27days;23.68±5.16minutes) in comparison with G2 (8.33±3.91;9.07±2.70respectively). Amount of fentanyl and morphine was lower (p< 0.01) in G1 (1.84±0.75µg/kg-1;5.62±5.00mg) in contraindication to G2 (3.64±1.21µg/kg-1;28.97±9.75mg). HR, MBP were higher (p< 0.01) in G2 (figure1,2). BL, IT were higher (p=0.04;p=0.14) in G2 (610.26±406.31ml;1949.36±917.45) in comparison with G1 (480.82±354.60ml; 1597.12±809.54ml). Diuresis didn’t differ (p=0.627) in groups (G1-102.74±10.46ml;G2-110.32±17.78).

Conclusions ESPB as a component of anesthesia reduces intensity of pain at all stages of observation after surgery, decrease amount of opiates, duration of ventilation and hospitalization. ESPB diminish HR and SBP, minimize BL and IT without affecting diuresis.