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### Perfusion index as a predictor of successful neuraxial anesthesia

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**Background & Goal of Study:** Traditionally evaluation of adequacy of the neuraxial anesthesia depends on the loss of response to the sensations of cold and pinprick which requires patient cooperation.

**Objective:** Assessment of clinical signs of sympathectomy does not appear fast enough to confirm surgical anesthesia. We hypothesized that increases in the pulse oximeter perfusion index (PI) may provide earlier and clearer objective evidence for sympathectomy compared to traditional responses to sensory stimulation.

**Materials & Methods:** After approval was obtained from the Ethics Committee of University of Dokuz Eylül, Medical School, İzmir, patients at 18–65 years of age who were categorized as American Society of Anesthesiology physical status I-III were included. A spinal block using 0.5% bupivacaine was performed with the patient in the sitting position. No external heating device was used. The upper sensory block level was checked 2min after the spinal injection by assessing the loss of cold sensation from alcohol swabs. Systolic blood pressure (SAP), heart rate and PI were recorded at 2 min intervals in the first 10 min and then at 5 min intervals. Skin temperature was recorded at the same times. The PI value is generated by pulse oximetry placed on the second toe.

**Results & Discussion:** Compared to basal values, sympathectomy caused a significant decrease in SAP and a increase in PI values following spinal anesthesia. The increase in skin temperature was significant after the 8th minute. The increase in the PI value and sensory block level were parallel in 15 minutes following spinal anesthesia and both stayed at a plateau afterwards. In one patient in whom the spinal block was not successful, PI did not significantly change compared to baseline.

**Conclusion(s):** Give a simple answer to the hypothesis in the light of the new data from your study. You may wish to suggest what needs to be studied next. The conclusion must be justified by your data.

### Biography

Ayşe Karci has completed her medical education at Ege University, Turkey and was specialized in Anesthesiology in Dokuz Eylül University School of Medicine. She is still working in the same hospital as an Associate Professor. She has worked in the Department of Obstetrics and Labor Unit as Anesthesiologist and was also the Director of School of Anesthesia Technicians for six years. She has 16 publications in reputed journals and 29 Turkish papers in the field of Anesthesia.

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