

# Incidence and Characteristics of Chronic Pain and Disability in Parturients with an Accidental Dural Puncture: A Case Controlled Prospective Observational Study

Yair Binyamin<sup>\*1</sup>, Sharon Orbach-Zinger<sup>2</sup>, Philip Heesen<sup>3</sup>, Yakov Gozal<sup>4</sup>, David Halimi<sup>4</sup>, Amit Frenkel<sup>1</sup>, Alexander Ioscovich<sup>4</sup>

1. Department of Anesthesiology, Soroka University Medical Center and the Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
2. Department of Anesthesiology, Rabin Medical Center, Beilinson Hospital, Petach Tikva, Israel.
3. Faculty of Medicine, University of Zurich, Zurich, Switzerland.
4. Department of Anesthesiology, Perioperative Medicine and Pain Treatment, Shaare Zedek Medical Center, affiliated with the Hebrew University Hadassah Medical School, Jerusalem, Israel

## Background

The most common complication of epidural analgesia is accidental dural puncture which often leads to post dural puncture headache. We set out to examine the incidence of chronic headache and back pain in women with post dural puncture headache who had no history of headache and backache before labour.

## Methods

Chronic headache, backache and disability were assessed 18-24 months postpartum using a questionnaire. We matched post dural puncture headache women with a control group. The post dural puncture headache group was subdivided into women who received epidural blood patch and women that did not. Our primary outcome was the incidence of chronic headache and backache. Secondary outcome was the effect of epidural blood patch on chronic pain development.

## Results

In the post dural puncture headache group, 21/115 (18.3%) women suffered from chronic headache. In the control group, 0/235 (0.0%) women suffered from chronic headache,  $p < 0.0001$ . In the post dural puncture headache group, 24/115 (20.9%) women suffered from chronic backache. In the control group, 9/235 (3.8%) women had a chronic backache,  $p < 0.0001$ . There was no difference in the rate of chronic headache and chronic backache between patients with post dural puncture headache treated conservatively and patients treated with epidural blood patch.

## Conclusion

Women with post dural puncture headache had a high incidence of chronic headache, back pain and disability. Further attempts must be made to continue to decrease the rates of accidental dural puncture in order to minimize post dural puncture headache.

