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# Correlates of post-dural puncture headache and efficacy of different treatment options: A monocentric retrospective study

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#### Abstract

**Background and Objectives:** Post-dural puncture headache (PDPH) is a severe positional headache that appears usually

within 72 hours after inadvertent dural puncture, secondary to cerebrospinal fluid leakage. It is treated first by conservative treatment (including bed rest, hydration, caffeine, and simple analgesia) and then by invasive procedures such as blood patch. This study aims to evaluate factors associated with PDPH among a sample of Lebanese patients and assess the rate of success of different treatment modalities administered in a specific sequence: conservative treatment first then ultrasoundguided bilateral greater occipital nerve block (GONB) if failure of conservative treatment and last, epidural blood patch (EBP) if failure of GONB. Methods: A retrospective case-control study was conducted between January 2015 and December 2019 in the Notre-Dame des Secours University Hospital (CHUNDS). Out of a total of 10051 procedures, 18 patients were diagnosed with PDPH, who were matched by gender, age, and procedure type to a random group of control patients who did not develop PDPH (72 patients). Results: Higher body mass index (ORa=0.77) was significantly associated with lower odds of PDPH, whereas the presence of previous chronic headache (ORa=5.56) was significantly associated with higher odds of PDPH. Seven out of 18 (38.89%) had their pain symptoms/headache resolved on conservative treatment. Out of the remaining 11 patients, 6 (33.33%) had their symptoms resolved on GONB with a significant decrease in the pain score 48 hours after GONB compared to baseline (5.55 vs. 9.73; p=0.007). Five patients (27.78%) had their symptoms resolved using a blood patch, with a significant decrease in the pain score after blood patch compared to baseline (3.00 vs. 9.80; p=0.041). Conclusion: Our preliminary data suggest that ultrasound-guided GONB is a minimally risky and efficacious technique for those who fail to respond to conservative treatment.



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### Biography

Dr. Akel Azzi is a PGY1 resident training in hematology oncology at CHUNDS Hospital, Lebanon. He obtained his medical degree from the Holy Spirit University Of Kaslik, Lebanon.

#### Speaker Publications:

1. The effect of kerehau leaf extract (callicarpa longifolia lamk.) On lipid ratios and aorta histopathology of male rats of wistar strain

2. Phytochemical screening and evaluation of analgesic and thrombolytic activity of the crude methanolic extract of calamus rotang l. Leaves (arecaceae)

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