

Post dural puncture headache worsens the clinical course of pre-existing headache

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Background: Post dural puncture headache (PPH) is the most common complication of diagnostic and therapeutic lumbar puncture (LP). Objective: The incidence of PPH in relation to the pre-existing headache was assessed, as well as its effect on the clinical course of the pre-existing headache, a month and three months after LP. Methods: The study was conducted as cohort prospective study which including 252 patients (105 men and 147 women), average age of 47.3 ± 15.0 years, in which LP was conducted. Results: PPH was reported in 52.8% patients. PPH was more common in women ($p=0.043$), in younger patients ($p<0.001$) and in smokers with shorter smoking periods ($p<0.001$). In the investigated group, 32.5% patients had a pre-existing headache. Patients with a pre-existing headache were more likely to have PPH ($p=0.003$). The individual clinical type of the previous headache did not have an effect on the incidence of PPH ($p=0.128$). Patients with PPH and pre-existing headache did not have a clinical deterioration of the previous headache after a month of LP ($p=1,000$) and had a clinical deterioration of the previous headache after three months of LP ($p=0.047$). The worsening of the pre-existing headache was more common in women with PPH (OR 5,687 [95% CI: 1,526-21,200], $p=0,010$) and patients with a longer history of previous headache (OR 1,064 [95% CI: 1,007-1,124], $p=0.027$). Multivariate analysis confirmed the direct association of female sex and worsening of the pre-existing headache after three months of LP (OR 4,478 [95% CI: 1,149-17,452], $p=0,031$). Conclusion: The results might be important for the prevention of PPH and its effects on clinical worsening of the pre-existing headache. The same research in the long-term monitoring period would be of great interest. Keywords: Post dural puncture headache