

Percutaneous discectomy in lumbar disc herniation treatment

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Abstract

Background: Multiple surgical treatment methods of a disc herniation are known our days but some controversies may occur in the individual selection of the operation type. In spite of the registered successes in degenerative pathology treatment, the term of “Failed back syndrome” was established. This in turn has imposed the development and implementation of minimally invasive techniques, such as percutaneous discectomy (PD). The main goal of current study was the evaluation of the efficiency of PD in pain syndrome reduction (by VAS scale) at lumbar disc herniation (LDH) treatment.

Material and methods: The study was based on the analysis of 100 cases with LDH, that were operated in 2016 – 2020 through PD. The results of the treatment were appreciated according to the pain relief, neurological deficit reduction, the psycho-emotional state improvement, decrease of analgesic intake, length of hospitalization and the return to daily activity (Denis scale).

Results: PD proved to be a convenient method of treatment. Out of 100 patients, 78 showed the disappearance of pain and the reduction of the neurological deficit after the procedure, 12 patients showed improvements over 3 months according to the Denis Scale. 10 patients underwent microsurgical treatment due to the absence of improvement in syndromes.

Conclusions: The results of the study showed an effectiveness of 78% of the total, with the improvement of the VAS and Denis Scales criteria and a fast and early recovery of patients. At the same time, their hospital stay was reduced by only 24 hours.

Key words: Disc herniation, percutaneous discectomy, Denis scale.

Prevalence of polyneuropathy in patients with Parkinson`s disease in Germany

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Abstract

Background: The prevalence of the peripheral neuropathy (PN) is of 4.2 – 8% in those over 65 y.o. In patients with the Parkinson's disease (PD) a PN – prevalence of 34.2 – 55% was reported. Low vitamin B12-blood level was present in 13% of PD patients. There is a higher prevalence of PN in levodopa-treated patients (36.1%) than in naive (12.1%) and in healthy controls (8.1%).

Material and methods: We examined 601 patients with PD. Of them, 407 patients underwent electrophysiological examination.

Results: 444 (73.9%) had clinically PN. Of 407 patients who underwent electrophysiological investigations, in 361 (88.7%) PN was confirmed. The most common was axonal (304 patients; 84.2%), sensory (282; 78.1%), and slight (78; 21.6%) or moderate (164; 45.4%) PN. Of 471 patients receiving levodopa, 369 (78.3%) had clinical PN, compared to 75 (56.8%) of 132 levodopa-naive patients ($p<0.01$). At the T1 – time – point of first – diagnosis of polyneuropathy, 179 patients (40.3%) of 444 with PN had a vitamin B12-deficiency. In 585 of patients, 38 (33.3%) of 114 levodopa-naive PD patients had vitamin B12-deficiency at the T1, compared to 129 (27.1%) of 471 levodopa-treated PD patients ($p=0.2$).

Conclusions: Peripheral polyneuropathy is very common in PD. In our group of PD patients the prevalence of a clinical polyneuropathic syndrome was very high and in almost 90% of cases it was confirmed electrophysiologically. 40% of patients with PN had a vitamin B12 deficiency. Levodopa-treatment was more common in PD patients with PN than in those without.

Key words: Parkinson's disease, polyneuropathy, Vitamin B12 deficiency.