

Opponent's report to master thesis

Author **Iakovos Diogenous**
Title **Lumbar disc herniation**
Conservative versus Non-conservative Treatment
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Volume: 118 text sides, 33 figures, 80 references, 1 appendix table.
Type of the thesis: Research work comparing surgical and conservative treatment of discus hernia.

Author describes extensively on 59 pages the biomechanics of the lower spine, lower back pain syndromes, differences exactly between sciatica and radicular and pseudo-radicular pains and analyses pathomechanism of discopathy and discus protrusion. Describes exactly the laboratory examination technique of discus herniation and evaluates the reliability of Laségue's sign being positive in 80-90% but specific only in 40%. He reports also the development of symptoms in segments L4, L, 5, S1 in the bent body position attended with spine torsion. From such position the protrusion rises on the contralateral side of spin torsion. . The classic and mini surgical treatments are described and their effect is compared with exhaustively rendered conservative treatment methods. All selected studies are dated from September 2009 and come from databases: Medline, Embase, Spine Journal, European Spine journal, British medical Journal, American Academy of orthopaedic surgeons, Journal of American medical association and Journal of chiropractic medicine. Treatment effects were evaluated by visual analog scale (VAS) Oswester disability index and by Sciatica bothersomeness index.

The results of S.P.O.R.T. research trial were analyzed with 1244 patients included and treated conservatively as well as surgically in 13 spine clinics in 11 states of USA observed in intervals at 3, 6, weeks and 6monts and 1- 2 years . Weistein's trial with 743 patients (521 after surgical intervention and 222 only conservatively treated) was also evaluated.

The work status was worse after the surgical intervention till to 3 months in comparison with conservative treatment. Four years after surgical intervention worked 84% patients and 78.4% patients worked treated only conservatively. Author mentions the positive effect of physical therapy and reminds McKenzie treatment and chiropractic therapy as effective methods. After surgical intervention, the effects were good but relapses and re-operations occurred.

Summarizing all reviewed assembly the author closes that the Lumbar disc hernia should be treated conservatively from the begin and surgical intervention should be indicated later after carefully considering improving or stagnation of the repairing process

Conclusion

The presented master thesis is exhaustively and minutely elaborated using the recent sources of many distinguished journals and Internet media. It brings the recent summary of the problem of lumbar disc hernia from diagnostic and therapeutic stand points. The subject matter is critically evaluated and brings new knowledge for the physiotherapy. There are some orthographic faults in the text which do not affect the readability. They should be corrected. The text contains a great number of abbreviations not always explained directly in the text and a table of abbreviation is missing. My question is this one: in evaluation of treatment effect was used the Sciatica bothersomeness index evaluating subjectively the feelings of mental state. How was guaranteed the homogeneity of subjects in tested groups because the threshold for sensibility is set individually in every patient and patients must be selected also from this standpoint of perceiving the pain or other bothering perceptions ?

I recommend the presented master thesis to be accepted to the state examination And evaluate it between excellent or very good in agreement with the disputation.

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