The Effect of Discography on the Surgical Decision in Patients with Chronic Low Back Pain
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Purpose of the study: A reduced frequency of discographies might be the result of increasing worries on long-term effect on disc degeneration. An extended knowledge is needed on in what patients and how discography is most likely to influence the surgical decision. This study is aimed to highlight how discography affects surgical decisions when performed on four different indications in a difficult subgroup of patients with Chronic Low Back Pain (CLBP) supposed to be the result of Degenerative Disc Disease (DDD).

Methods: 138 patients treated under the diagnosis DDD at a spine clinic during three years (8% of all) were refered to discography since it was felt that medical history, clinical findings and MRI was insufficient to make a final assement on whether to propose surgery/not surgery or on what segments to operate. Before these patients with uncertainty were referred to provocative discography the surgeon had to define one out of four alternative indications for the examination and what decision would have been taken if discography was not available. The alternative indications were:
1. Surgery decided, discography to establish whether to treat also adjacent segment. (n:17)
2. Several segments degenerated in MRI, pain likely to be discogenic, discography to evaluate what segments to treat. (n:56)
3. Uncertainty if pain is discogenic but a suspected segment on MRI. (n:38)
4. Uncertainty if pain is discogenic and several segments degenerated in MRI. (n:27)
The decision after discography was then compared with pre-discographic decision and the differences and alterations were analyzed.

Results: When the surgeon was certain that pain was discogenic, one segment was added or subtracted in 58% of the patients compared to original pre-discographic decision.
When the surgeon was uncertain if pain was discogenic, the final decision went from surgery to not surgery in 8%, from not surgery to surgery in 42% and in cases pre-discographically planned for surgery, one segment was added or subtracted in 17% of the patients.
In patients with indication “1” all patients were planned for surgery, one (6%) changed to not surgery while 10 (59%) had a change in segments to treat.
In patients with indication “2” 48 patients were planned for surgery (86%), 12 (21%) had a change in surgery/not surgery, while 32 (57%) had a change in segments.
In patients with indication “3” 19 patients were planned for surgery (50%), 15 (39%) had a change in surgery/not surgery, while 11 (29%) had a change in segments.
In patients with indication “4” 7 patients were planned for surgery (26%), 17 (63%) had a change in surgery/not surgery, while no patient had a change in segments.
In all the 27 patients with a preliminary decision only to treat the L5-S1 segment changes on segments were made. The corresponding figure for L4-L5 was 70% and for L4-L5-S1 53%.
In total changes were made from the pre-discographic decision in 71% (63-79%) of the patients.

Conclusion: When using discography as an added examination in patients where uncertainty remains after normal clinical examination, questioning and MRI, a high frequency of decisions are altered, why, despite the risks with discography, this uncertain patient-group seems to benefit from this added examination.