Título: PEEK INTERSPINOUS DEVICE AND LUMBAR DISK RESCUE

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Introdução/Objetivos:
In the beginning of the degenerative process of the intervertebral disk the water content of the nucleus pulposus decreases and the proteoglycane composition alters.
It occurs in senescence or in premature aging.
The consequence of water loss is: reduction of intradiskal pressure and disk height and later to alteration of the load distribution and results in an overloading of the annulus fibrosus and the facet joint. Degradation of the extracellular matrix, increased apoptosis and disorganization of the cellular architecture is observed. The extent of these degenerative changes depends on the magnitude, duration and frequency of load and pressure.
Some interspinous devices, like the Wallis System, can promote disk rehidratation and potential disk rescue.
This study was designed to demonstrate the potential disk rehidratation and regeneration after the implant of two interspinous spacers devices for lumbar dynamic stabilization.

Materiais e Métodos:
Multicenter study review and bibliographic review.

Resultados:
The WALLIS System was implanted in 438 selected new group of patients.
Group one: it was implanted in 226 patients.
Group two: was implanted in 212 patients.
Men:46%, women: 54%.
Age range: 19 to 72 yrs old; mean age: 51 yrs old.
Observed from January 2005 to January 2009.
After one year was observed, at RM Imaging, nucleus pulposus rehidratation in patients under 50 years old.
Group one (186 patients up to 50): 174 cases of rehydration (84%);Group two
(162 patients up to 50):139 cases cases of rehydratation (86%).

Conclusões:
There is consistent evidence of a positive influence of dynamic device WALLIS on the course of intervertebral disk degeneration. The next step would be to combine mechanical devices with intradiskal therapy.
Gene therapy, application of growth hormones, stem cells or biological nucleus replacement combined with mechanical dynamic systems may be options in the future.

Palavras Chaves:
Disk Regeneration, Wallis System