Clinical: Prosthesis

Cervical Alignment Changes after Single Level ProDisc-C Replacement
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Objective: To study the changes of spinal alignments after single level ProDisc-C replacement.

Method: 53 cases with single level ProDisc-C replacement in one center were reviewed. ROM of operative level, FSU(Functional Spinal Unit)angle, Cobb angle of C2-C7 were measured and compared on dynamic X-rays from PACS (Picture Archiving & Communication System).

Result:
1) The follow-up averaged 13.8 monthes and there were 7 cases of C34, 10 cases of C45, 27 cases of C56 and 9 cases of C67.
2) The preoperative segmental ROM averaged 8.6° and postoperative ROM averaged 9.7° with statistical significance;
3) The preoperative FSU angle averaged 0.1° and postoperative FSU angle averaged 3.6° with statistical significance;
4) The preoperative Cobb angle of C2-C7 averaged 7.0° and postoperative Cobb angle of C2-C7 averaged 8.0° without statistical significance.

Conclusion: After the ProDisc-C replacements, the segmental ROM was preserved and the FSU lordosis was restored. The ProDisc-C will be a better choice for the patients with preoperative FSU kyphosis.