



Anterior cervical fusion with polyetheretherketone (PEEK) cages in the treatment of degenerative disc disease. Preliminary observations in 36 consecutive cases with a minimum 12-month follow-up

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STUDY DESIGN: Retrospective analysis of 36 cases of degenerative disc disease treated by interbody fusion with polyetheretherketone (PEEK) cages. **OBJECTIVE:** To determine the safety and efficiency of PEEK cages for anterior cervical fusion (ACF). **SUMMARY OF BACKGROUND DATA:** ACF with autologous bone has been reported since over 50 years ago. The recent development of cages housing materials inducing osteogenesis simplifies the technique of interbody fusion. The main purposes of bone substitutes for ACF are immediate biomechanical support, osteo-integration of the graft, and elimination of local side effects at the donor site. This report shows our results using PEEK cages. **MATERIALS AND METHODS:** During an 18-month period, 36 consecutive patients had cervical fusions at 43 levels between C3 and C7. All operations involved one or two disc spaces for degenerative disc disease. We implanted all disc spaces with PEEK cages (Stryker Corporation, Kalamazoo, MI) containing granulated coralline hydroxylapatite (Pro-Osteon 200, Interpore Cross International, Irvine, CA) or deantigenated pig bone in a gel solution (Gen-Os, Tecnos, Torino, Italy). **RESULTS:** About 97% of patients had a good to excellent outcome; the result in one myelopathic patient was fair. The cervical fusion rate was 16.7% at 3 months, 61.1% at 6 months, and 100% at one year.

CONCLUSIONS: PEEK cages appear to be safe and efficient for ACF. In order to confirm our preliminary impressions studies on larger series with long term follow-up are warranted.

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