

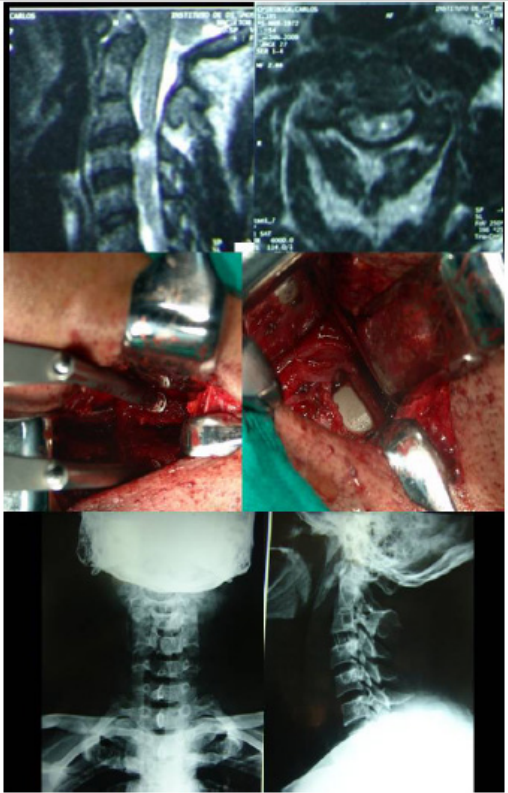
ACDF with autologous bone has been reported since over 50 years ago. The recent development of cages housing materials inducing osteogenesis simplifies the technique of interbody fusion. The main purposes of bone substitutes for ACF are immediate biomechanical support, osteo-integration of the graft, and elimination of local side effects at the donor site.

This report shows our results using PEEK cages. During an 36-months period, 24 consecutive patients had cervical fusions at 32 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 (Cornerstone Medtronic Sofamor Danek) containing granulated hydroxylapatite (Ostim Medtronic Sofamor Danek). We studied VAS , Oswestry , Neck Disability index and rate of fusion over 36 of follow up.

About 95% of patients had a good to excellent outcome; the principal complication was subsidence in three patients without clinical relevance

Figure 1 consists of two panels. The left panel is a lateral X-ray of the cervical spine, showing the vertebrae from C1 to C7. A white arrow points to the C5/6 disc space, indicating the site of the surgical approach. The right panel is an intraoperative photograph showing the surgical field after a minimally invasive approach. A white arrow points to the C5/6 disc space, which is the target for the discectomy. The surrounding soft tissue and bone are visible, and the surgical approach is clearly defined.

C2-3



A lateral X-ray of the cervical spine. A clear fracture line is visible in the vertebral body of the sixth cervical vertebra (C6). The fracture is oriented vertically, extending from the anterior aspect of the vertebral body. The surrounding bony structures, including the intervertebral discs and other vertebrae, appear relatively normal.

A sagittal CT scan of the spine. A red square highlights a fracture in the T12 vertebral body. The fracture is a compression fracture, with the superior part of the vertebral body appearing collapsed and fragmented. The rest of the spine shows normal bony anatomy.

The cervical solid fusion was achieved in 100% at one year. Conclusion PEEK cages appear to be safe and efficient for ACDF without plate . In order to confirm our preliminary impressions studies on larger series with long term follow-up are necessary.

By the conclusion of this session, participants should be able to describe the importance of this technique, discuss in small groups the advantages of stand alone cervical fusion and identify an effective treatment of degenerative cervical disc disease