The use of a new anterior distraction device (ADD and ADD plus) in cervical longitudinal median corporectomy

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INTRODUCTION

At present time, there are numerous devices that can be used as vertebral body replacements for the anterior cervical spine. Considering our non optimal experiences in radiographic controls with some of the vertebral body replacements previously used, we present this new anterior distraction device (ADD).

MATERIALS AND METHODS

This system (Titanium) is a distractable vertebral body replacement for the cervical spine, and can be used to replace a collapsed , damaged or instable vertebral body due to degenerative disease, tumor or trauma. The ADD is available in 3 different diameters: 12, 14 and 16 mm., with initial lengths ranging from 7 to 39 mm and distraction height possibilities ranging from 10 to 65 mm. The superior end of the device is also available with a 6° inclination. This extremely versatile system is easy to use and can be easily adapted to any situation. The cavity can be filled with bone material. It's immediate stability is very good, however we have preferred to add, in all cases, a titanium plate with screws. Although our experience, at the present time, is limited in terms of number of cases, we have a follow-up of 2 years.

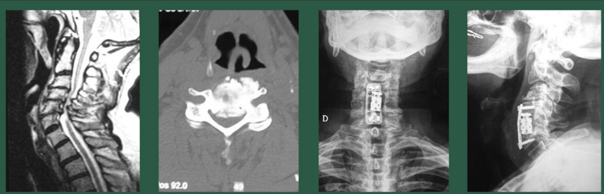


Fig.1: A.C. male 68 yrs: Severe spondilotyc myelopathy C4-C5

Fig.2: M.A. male 39 yrs: "Burst fracture" of C5

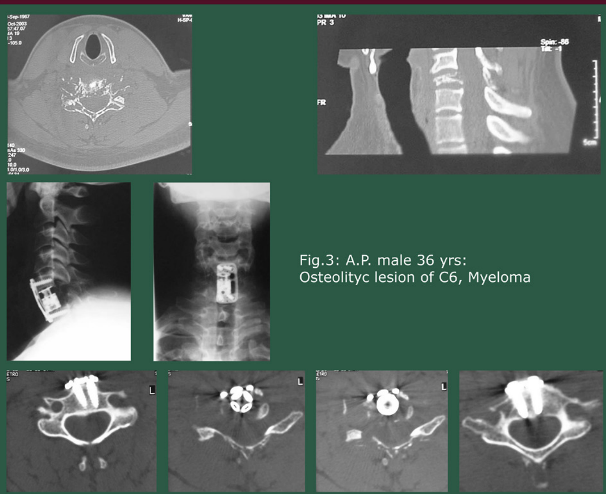


Fig.3: A.P. male 36 yrs: Osteolityc lesion of C6, Myeloma

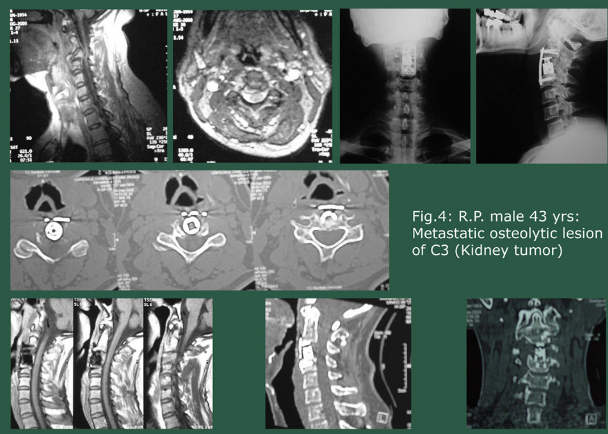
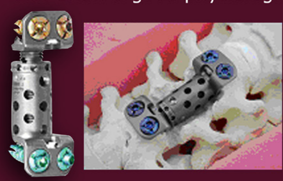


Fig.4: R.P. male 43 yrs: Metastatic osteolytic lesion of C3 (Kidney tumor)

RESULTS

The radiographic controls show us that there has never been mobilization and failure of the implant in any of the cases treated, nor has there ever been penetration of the implant into the adjacent vertebral bodies or dislocations. The X-ray pictures also show a good physiological cervical lordosis.



Recently we have used the ADDplus, a winged anterior distraction device. Cage and wings form one unit. The ADDplus is fixed to the vertebral bodies by means of screws of the osmium systems. Monocortical or bicortical screw anchoring is possible.

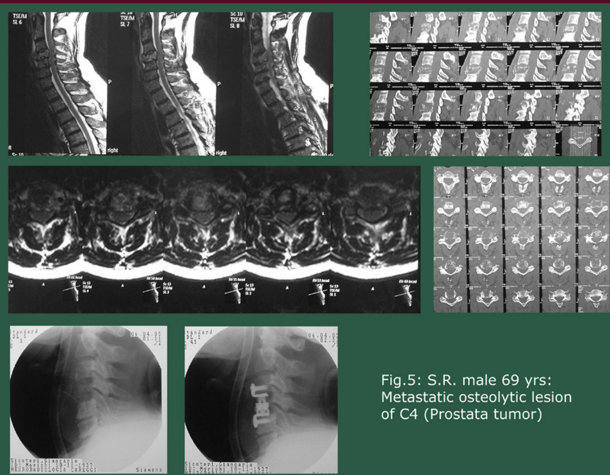


Fig.5: S.R. male 69 yrs: Metastatic osteolytic lesion of C4 (Prostata tumor)

DISCUSSION AND CONCLUSION

At this moment, the results and the experiences on this new system seem improved with respect to what was previously used. The simplicity in the assembly of the implant and the handling of the system, in terms of distraction, have all seemed excellent.
As of today (20 implants), we have never witnessed any system failure.

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