

## Posterior Lumbar Arthrodesis Using Coflex-F and Bone Substitute Complex: A 32 Patient Outcome Study

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#### Introduction

The COFLEX-F system was born to create vertebral arthrodesis inducing a block of movement in the articular district through the simple and safe positioning of the device between the spinous processes. The device features special perforated tabs that anchor firmly to the spinous process and by which you can enter dedicated rivets fastening the device in place. The main body has a characteristic shape of a "U" which allows the possible insertion of preformed bone substitute complex, creating a bone bridge between the spinous processes, lateral processes and posterior elements. In the study the bone substitute complex is composed bone substitute (FC-Finceramica, Faenza, Italy), patient bone and hemotological elements.

## Methods

32 patients with lumbar stenosis (L1-L5) were enrolled from 1 June 2011 to 01 January 2013. The patients were subject to the following analyzes and questionnaires:

- The personal data and identification of the clinical picture of the patient.
- Descriptive data of the surgical procedure.
- VAS pre-operative, post-operative, at six and twelve months .
- ODI pre-operative, post-operative, at six and twelve months .
- CT scan pre-operative, postoperative, six and twelve months.

### Results

The results show at 18 month followup good outcome in 28 of the 32 patients clinically improved VAS and ODI scores.

## **Conclusions**

The result obtained shows how the system COFLEX-F is capable of inducing an arthrodesis a very comparable to that obtainable with systems of pedicle screws and rods

In the light of the study in vitro and of the above considerations it is possible to assert that the use of the system COFLEX-F in combination of bone substitutes complex is from a biomechanical point of view vertebral arthrodesis with a clinical advantages for the patient and economically for the clinic.

## **Learning Objectives**

Identify an effective evaluation of the capacity of COFLEX-F to create a fusion at the operated level in combination of bone substitutes complex.

#### References

Biomechanical differences of Coflex-F and pedicle screw fixation combined with TLIF or ALIF--a finite element study.

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Decompression and coflex® interlaminar stabilization compared to decompression and instrumented spinal fusion for spinal stenosis and low-grade degenerative spondylolisthesis: Two-year results from the prospective, randomized, multicenter Food and Drug Administration Investigational Device Exemption Trial. Davis RJ, Errico TJ, Hyun B, Auerbach JD. Spine 2013;in press



Stenosis L4-5 Coflex-F/FC@18mos.





Fixation of Spinous Processes

### Stenosis in older patient at 6months

