

# Trinica® Anterior Lumbar Plate System



Case courtesy of Dr Erik Van de Kelft, MD, PhD

A.Z. Nikolaas Medical Center, Sint-Niklaas, Belgium

## Surgeon Profile

Erik Van de Kelft, MD, PhD  
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Dr Van de Kelft completed his undergraduate work at Sint-Lievens College in Antwerp, Belgium. He went to medical school and did his residency at the University of Antwerpen, followed by a fellowship at the University of Montpellier, France. He specializes in Neurosurgery and has completed a doctoral thesis on the molecular genetics of human gliomas. He is a member of the Belgian Scientific Neurosurgery Association, Association des Neuro-Oncologues d'Expression Française, Royal Surgical Circle of Antwerp, North American Spine Society, American Association of Neurological Surgeons, Neuro-oncology Committee of the European Association and the European Association of NeuroOncology.

## Patient History

The patient is a 37-year-old non-smoking female who was experiencing long-lasting incapacitating lower back pain with feelings of weakness and a strange sensation in both of her legs. She had no previous surgery. Her pain level scored a 6 VAS score and a 30 ODI score.



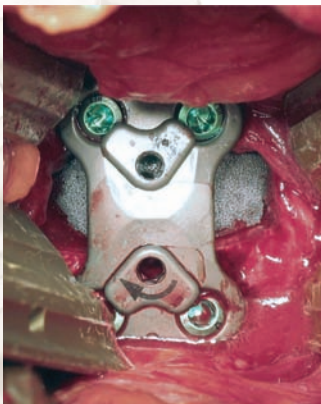
Pre-op MRI

She was treated for six months at the A.Z. Nikolaas pain clinic and rehabilitation center. She was given an NSAID and epidural steroids, and took 50 mg of Tramadol (three times a day), 1 g Paracetamol (three times a day) and 5 mg Diazepam (two times a day). Additionally, the patient participated in an intense physical therapy program for three months.

Examination revealed normal sensation and strength in both legs, but the patient had a positive straight-leg-raising test and a diminished Schober Index for lumbar flexion. A preoperative MR scan revealed degenerative disc disease (DDD) at L5-S1 associated with a medial disc herniation.

## The Procedure

The patient underwent an anterior lumbar interbody fusion (ALIF) procedure using a *Trabecular Metal*™ TM-400 interbody implant with a *Trinica*® ALP sacral plate for internal fixation. The procedure, which followed the instructions in the implants' surgical technique manuals, began with a horizontal suprapubic skin incision followed by a vertical para-umbilical incision in the abdominal fascia. The lumbo-sacral spine was reached through a blunt retroperitoneal dissection. Orthostatic retractors were installed and the level was confirmed via fluoroscopy. A complete discectomy was completed at the L5-S1 level using rongeurs, curettes and a high-speed drill. The endplates were prepared and the implant size was measured.



Implanted sacral plate and TM-400 interbody device

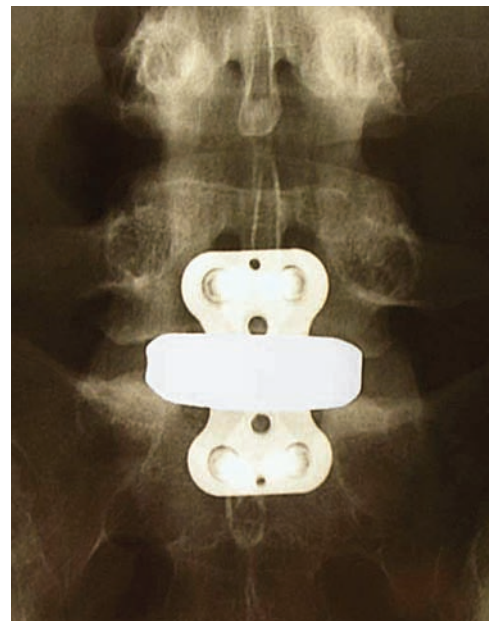
The patient was fitted with a 10 mm high (21 mm by 32 mm) *Trabecular Metal* TM-400 implant. Insertion was completed under fluoroscopy and care was taken not to harm surrounding venous structures. After proper insertion of the interbody device, a 39 mm (80°) *Trinica* ALP sacral plate was secured with four 26 mm screws. The plate was easily placed and fitted the patient's anatomical contour exceptionally well, even over the promonorium. The screws could easily be secured, and the procedure was completed without complication in sixty minutes. There was a 50 cc blood loss.

#### Case Comments

The patient's pain improved considerably. Her postoperative VAS score was 1 (preoperatively: 6), and her postoperative ODI score was 0 (preoperatively: 30). Follow-up is forthcoming and will be completed at twelve weeks. The patient was pleased with the result.



*Lateral view  
immediately postoperative*



*Anterior view  
immediately postoperative*

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