

A NEW TYPE OF GROWING ROD

PRELIMINARY RESULTS

L. MILADI

**Saint Vincent de Paul Hospital
PARIS**

AUTHOR DISCLOSURE

L. MILADI



NO FINANCIAL RELATIONSHIPS

INTRODUCTION

- Many kinds of growing rods are used for early surgical treatment
- They need repeated surgery
- High complication rate



METHODS

- Since February 2005, I have been using a new type of growing rod : The « Phenix M Rod »
- « I » or « J » shape
- 3 diameters (3.5, 4.5 or 5.5mm)
- Adapted lengthening potential (2.5 to 5cm)
- CI : Pace Maker, MRI



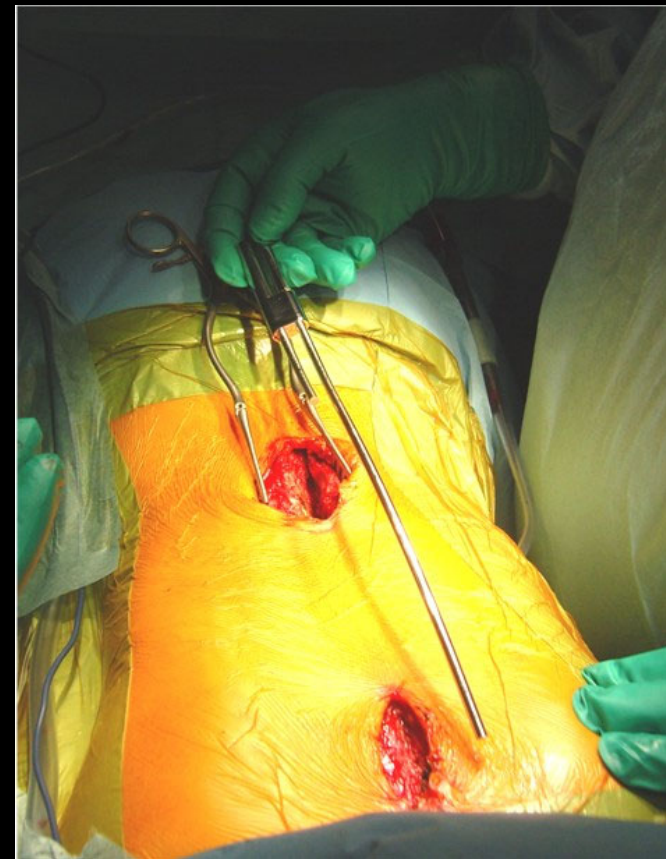
METHODS

- Lengthening is made by parents at home
- 50 rotations = 1mm lengthening
- 20 rotations a week = 1.2mm a month = 1.5cm a year lengthening



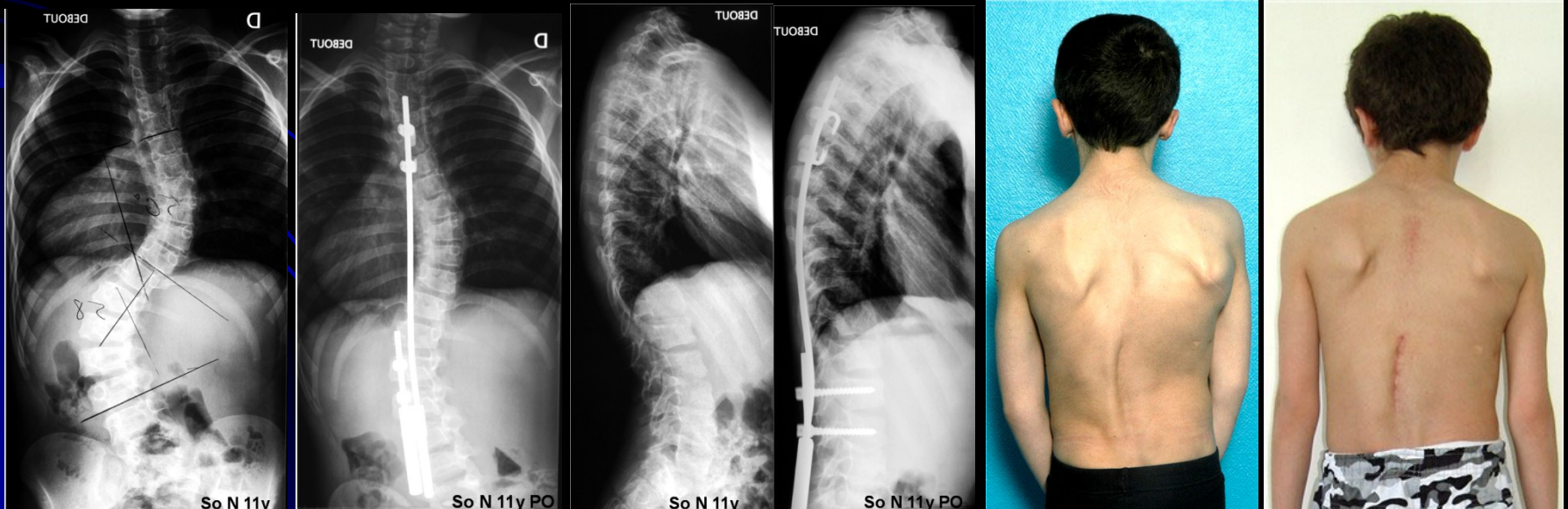
METHODS

- Rod insertion through 2 small incisions
- Fixation on ribs or vertebrae
- No cast or brace for 5.5mm rod



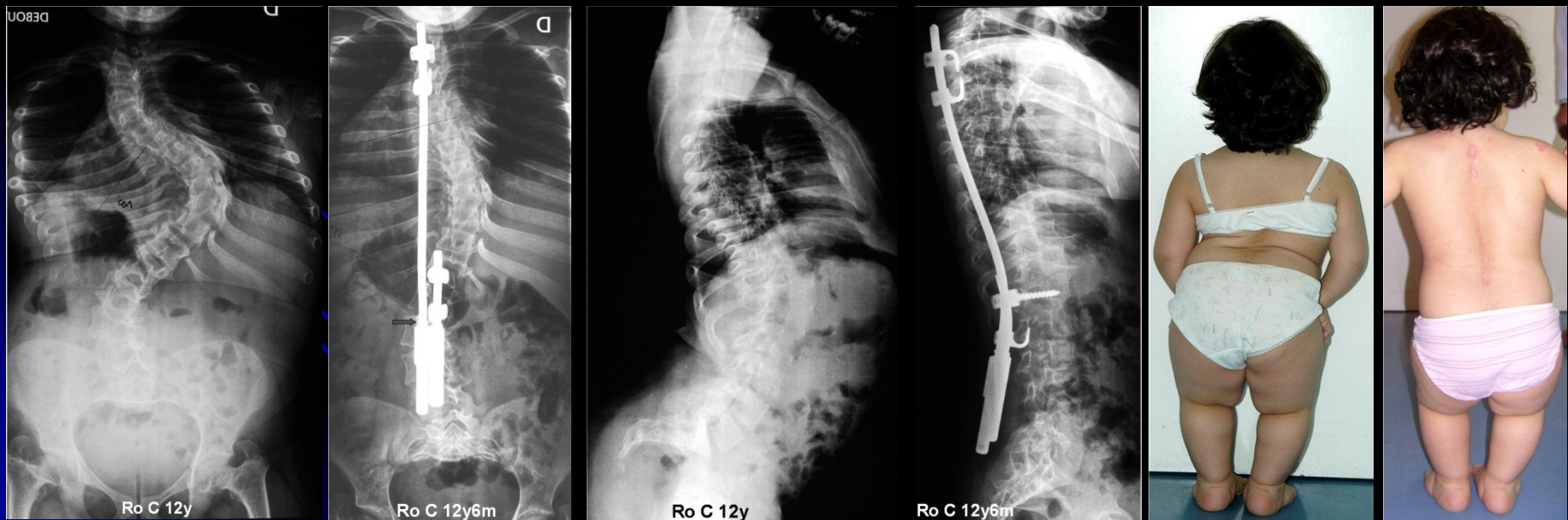
MATERIAL

- 26 Cases (16G+10B), same surgeon
- Aged from 22m to 13y9m
- 11 idiopathic, 7 congenital, 8 other
- Cobb angle 63° (25 to 130°)
- 5 anterior convex epiphysiodesis
- No brace in 15 cases



RESULTS

- All patients are still on treatment
- Postoperative Cobb angle : 33° (4 to 92°)



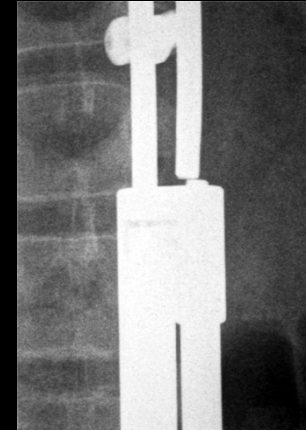
RESULTS

- 1 hook dislodgement on a rib
- 1 peroperative SSEP lost (recovery)
- 2 skin infections



RESULTS

- 2 rod breakages (D = 4.5mm)
- Loss of correction by rod rotation in 10 cases, 8 were changed

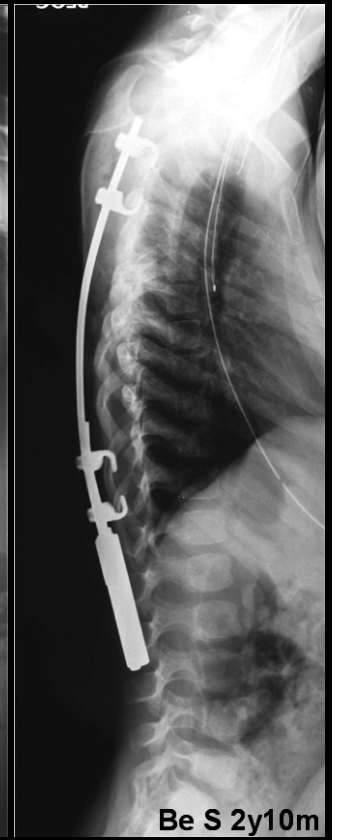
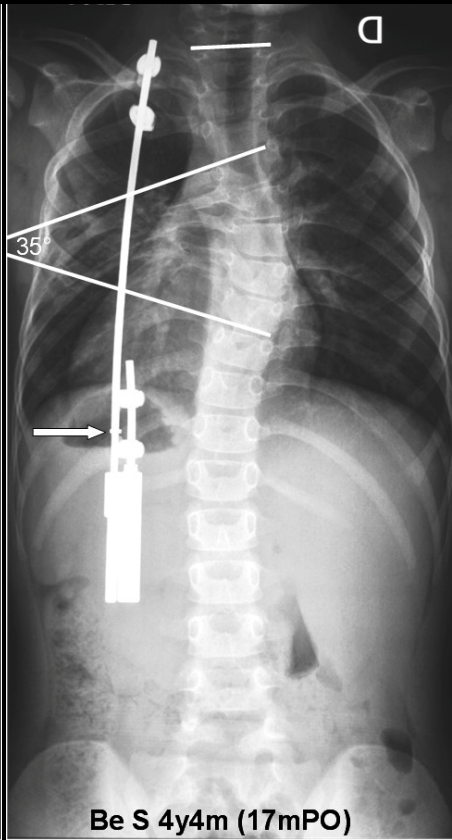
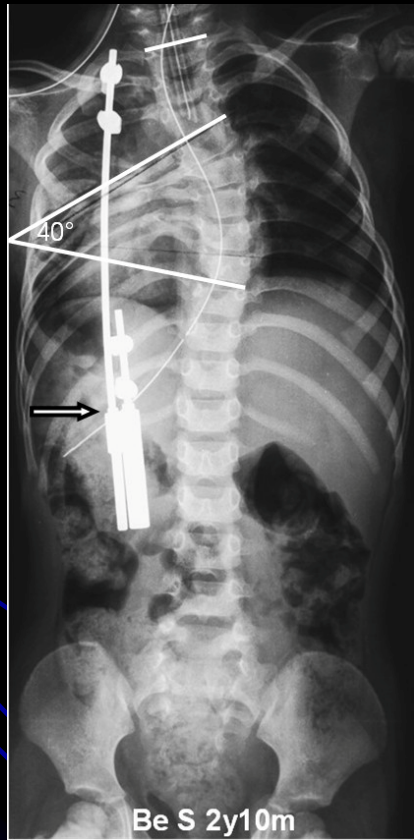


RESULTS

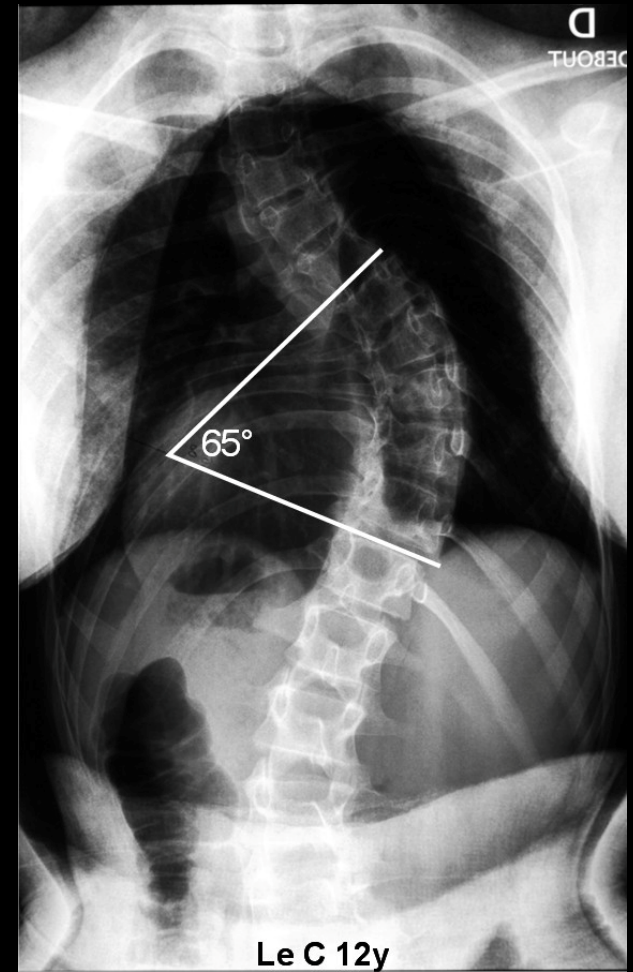
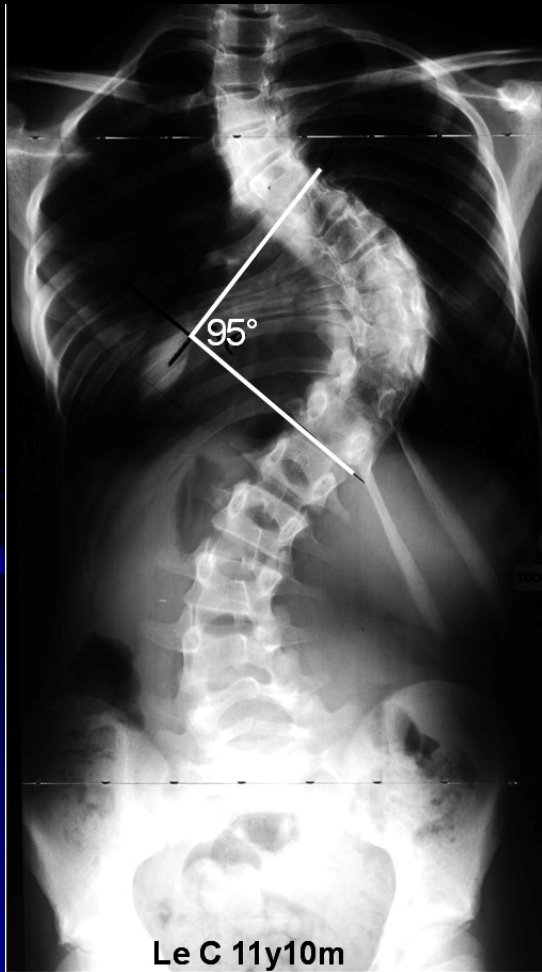
- Bulkiness of the device in 3 cases
- No lengthening of 4 rods



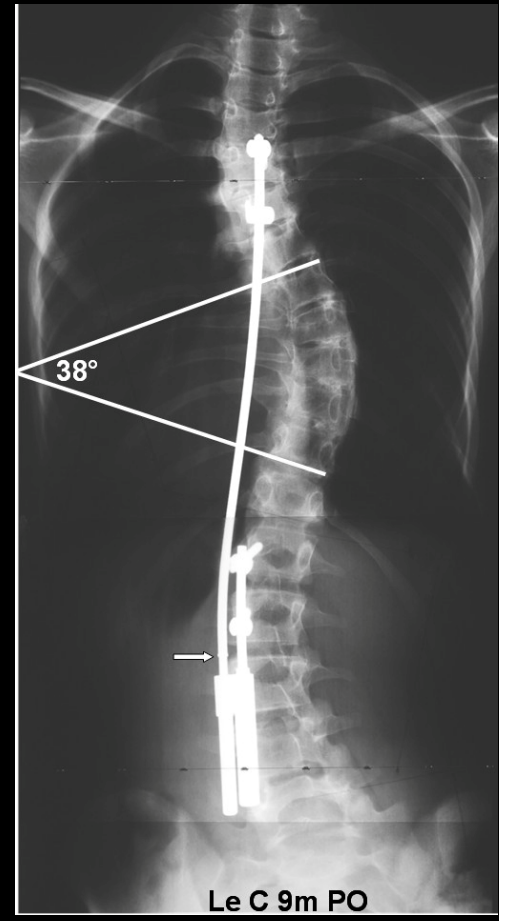
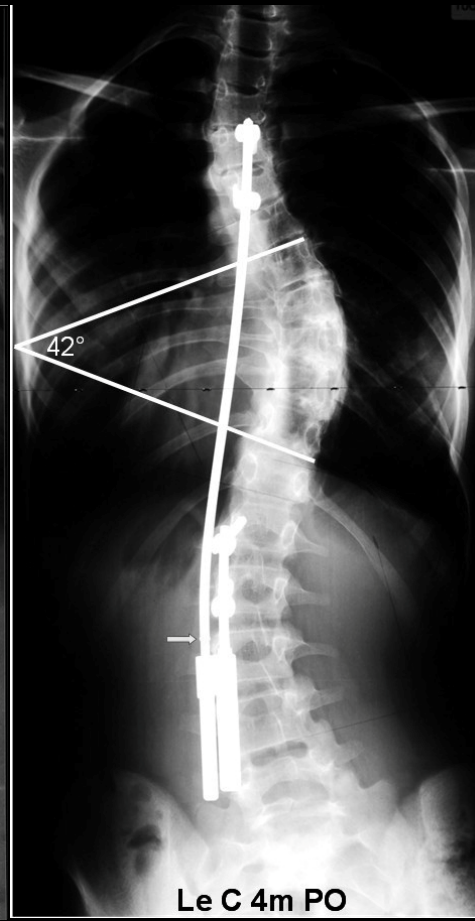
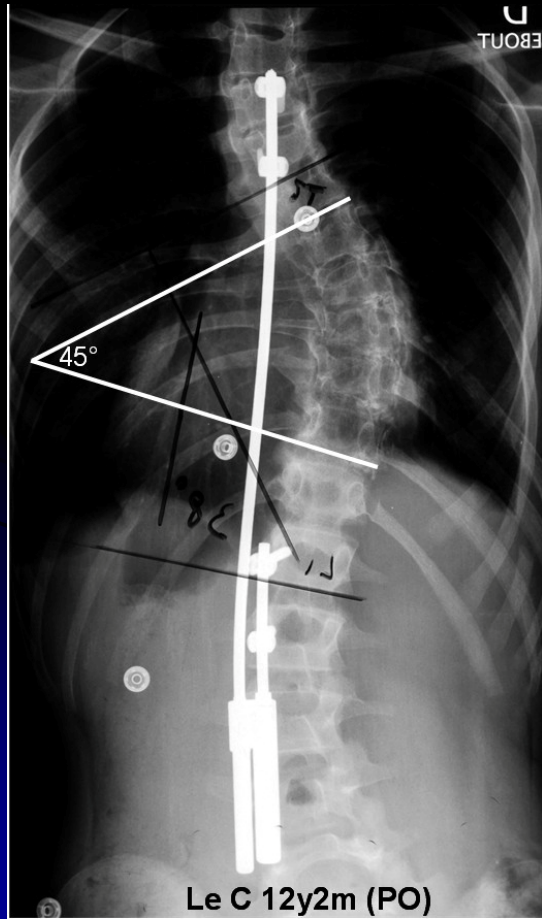
CASE 1



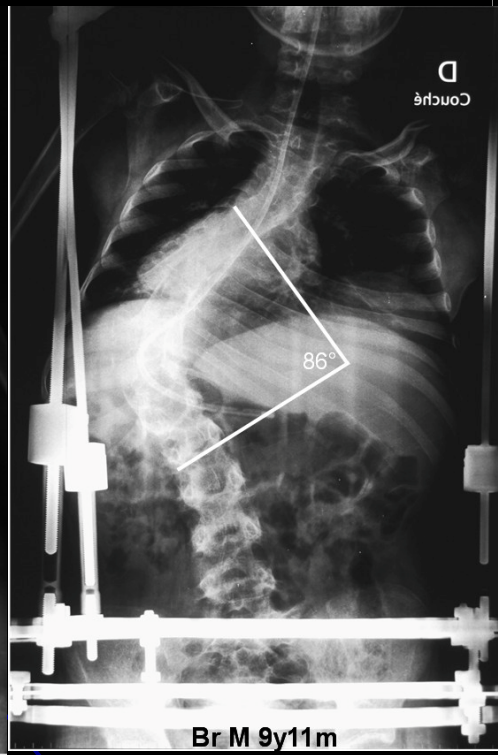
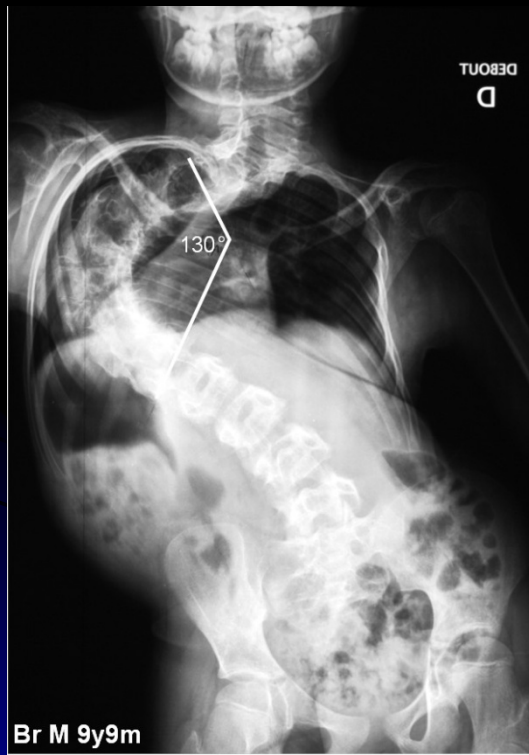
CASE 2



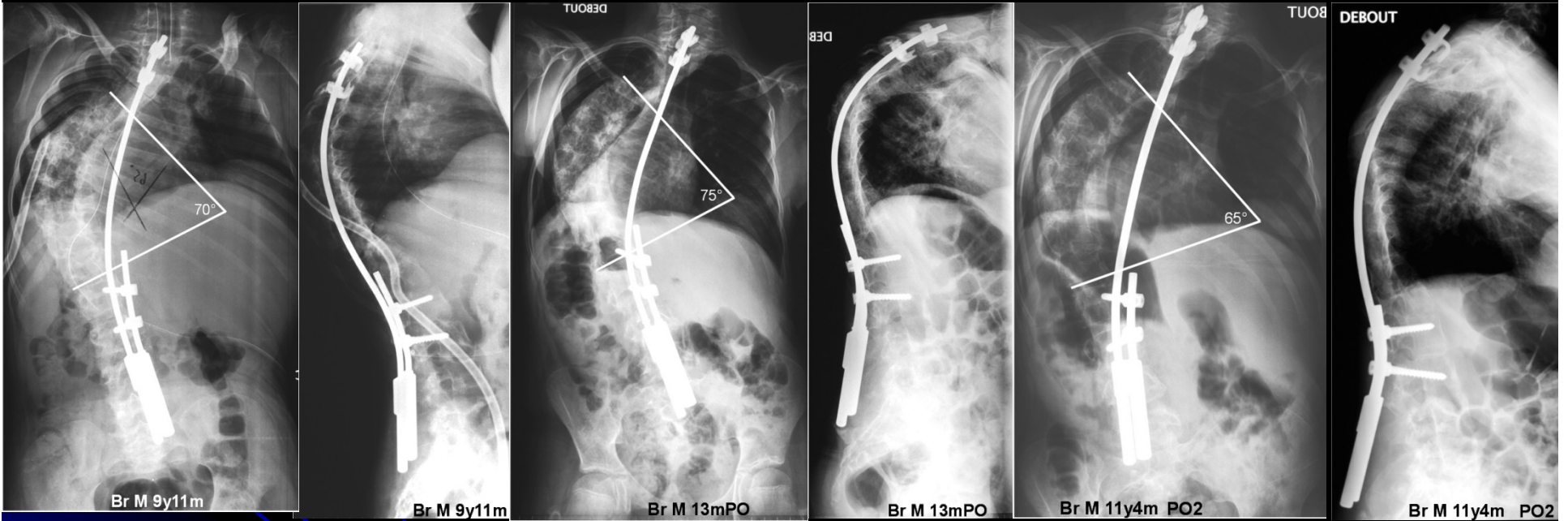
CASE 2



CASE 3



CASE 3



CASE 3



Initial VC = 290 cc



Final VC = 700 cc