

# Magnetic controlled growing Rod (MCGR) Technique in the treatment of early onset scoliosis

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# Phenix

- We have recently introduced the Phenix magnetic controlled growing rod technique in the treatment of EOS.

# Patients

- 8 girls
- 3 boys
- Mean age 7 Y (44-120 Mo)

# Diagnoses

- Idiopathic Scoliosis 5
- Myelodysplasia 3
- Syndromic 3
- Congenital malformation 1

# Results

- Magnetic distraction initiated in 9/12 cases
- Not initiated in one MMC case with pelvic bone resorption (infection?).
- Not initiated in one case with early Proximal Junction Kyphosis (PJK).
- Not initiated in one case recently operated on.

# Results

- The magnetic controlled growing rod has functioned between anchors in all 9/9 activated cases.
- In all cases but one (8/9) the deformity has decreased in magnitude according to Cobb.
- One case with 9 mm of distraction the Cobb angle increased however from 45 to 65 degrees making our decision to perform a definitive surgery. The scoliotic value unchanged.

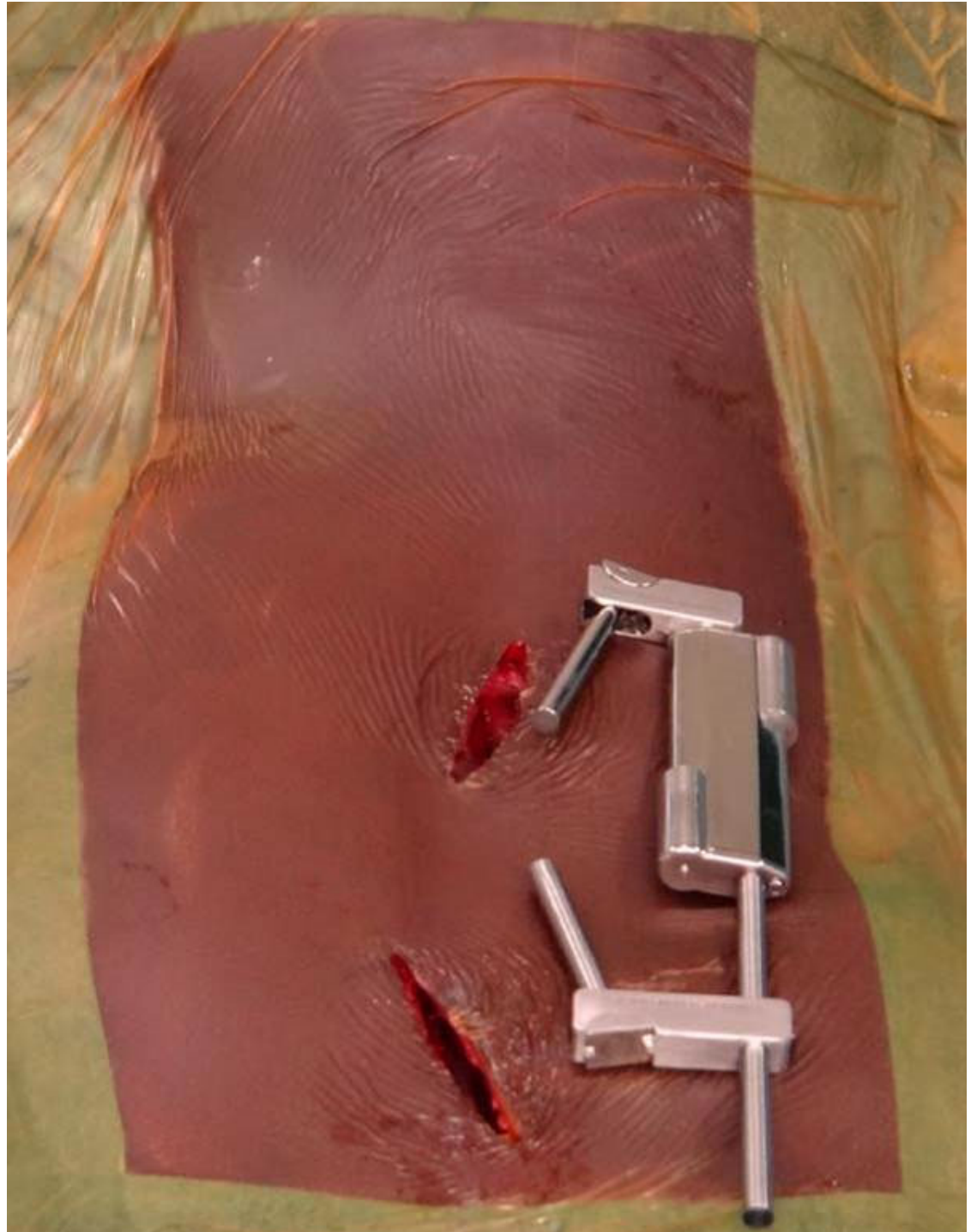
# Discussion

- The MCGR technique utilising the Phenix rod has provided us with a promising technique in treating EOS.

# Case illustrations

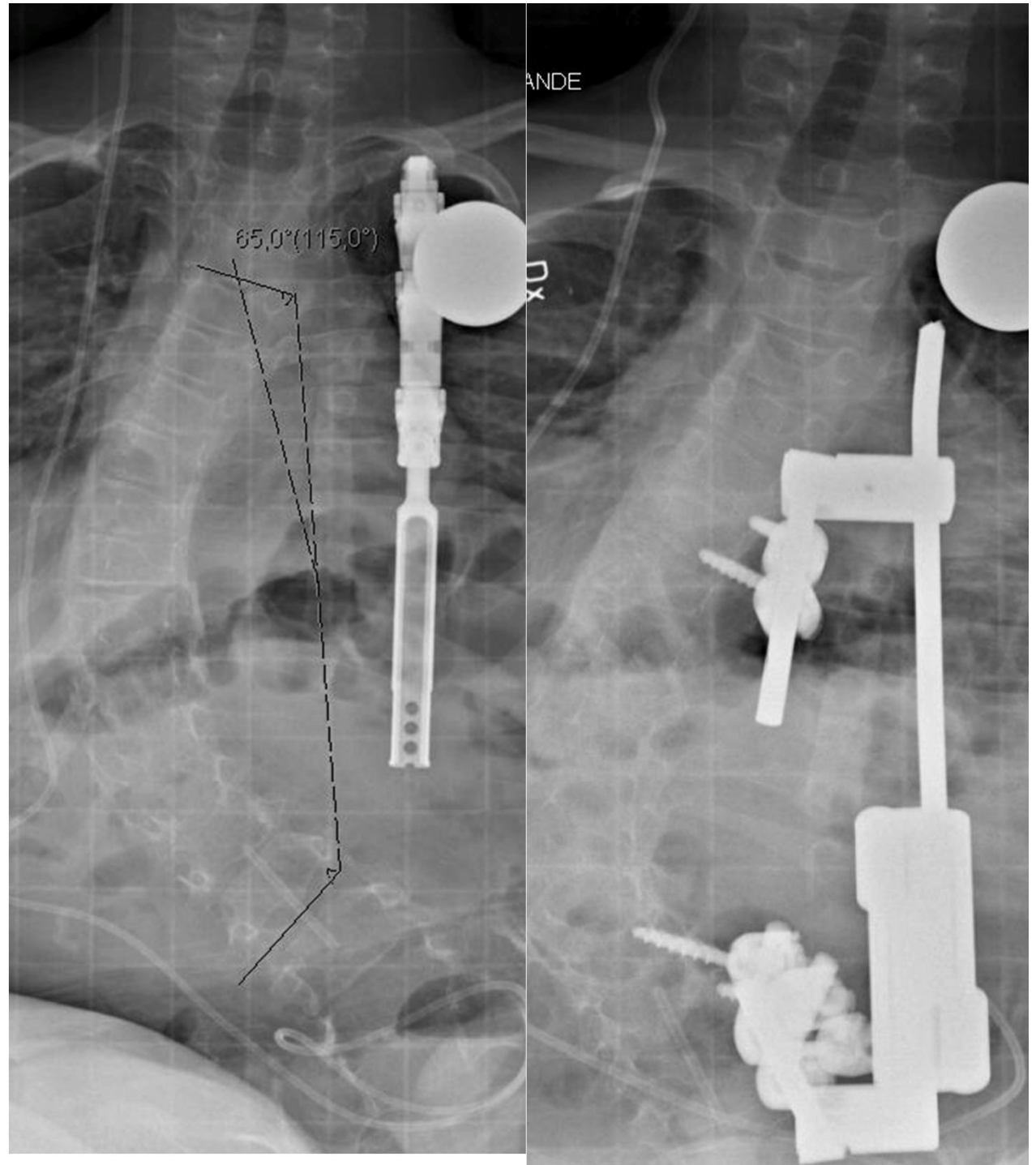


By 2 limited incisions  
the Phenix devise can  
be attached to the  
spine with 2 anochor  
screws at each end.

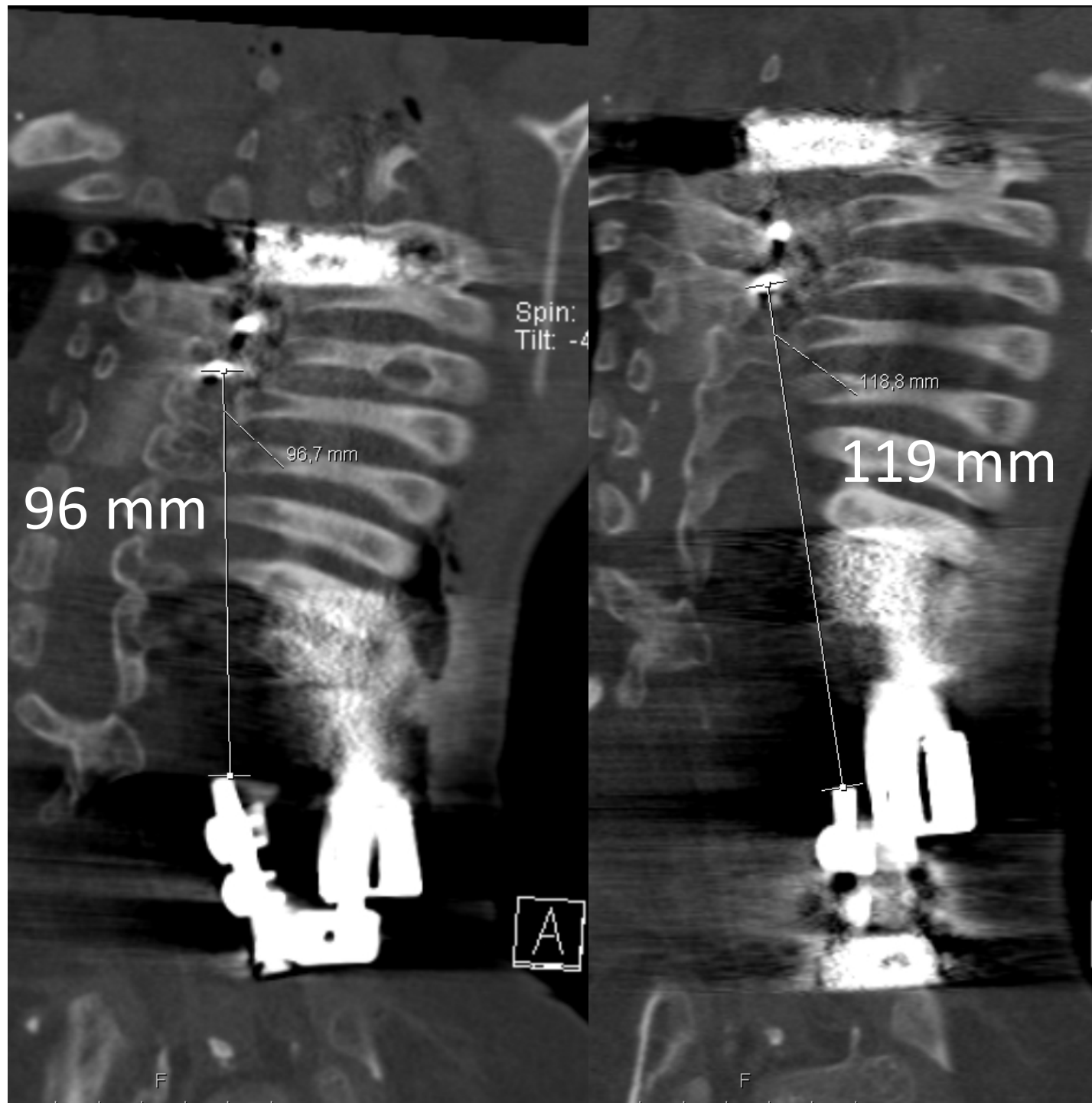


Case of  
myelodysplasia,  
now 9Y of age,  
previously treated  
with VEPT, after  
infections  
necessitating  
explantation; now  
revised and by  
means of O-arm  
for screw placement  
is now under  
continous  
lengthening.

J.L.M., MMC, 9Y



After 9 Mo of daily lengthenings by the mother, now the distraction equals 23 mm according to assessments by low dose CT. Clinically an obvious improvement is also observed.



# Conclusions

- The Magnetic Controlled Growing Rod principle utilising the Phenix device is promising