“Eiffel Tower” Construction In Gradual Correction Of Children With Congenital Kyphosis In Myelomeningocele - Till 7 Years Follow Up.

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conflict of interest disclosure

There is no conflict of interest for any author.
Increasing rigid hyperkyphosis; 
*decubitus*;  
Impossible supine position;  
Huge final operation
„Eiffel Tower” configuration
Double „rib – pelvis” construct

Distractions every 6-10 months

Aim:
protect from TIS
decrease spine deformation
Material

- 7 children - 2 males and 5 females
- Age: 5-9 y.o.
- Deformation before IP: 90-160° (mean 115°)
- Primary correction: 40°-145° (mean 72°)
- Follow up: 1-7 y-s (mean 4 y-s)

five patients further correction after distractions
two patient initial correction was maintained
Case 1 boy 4 y.o.
F-up 6 years
No hump
Better function
No progression
Case 2

girl 8 y.o.

Elongation test
F-up 6 years
Still presence of hump
Better function
Reversion to primary deformation
Case 3
girl 4 y.o.

F-up 2 years
Smaller hump
Better function
No progression
Discussion

• Hardware protects from the progression of deformation during spine growth
• Although correction wasn’t spectacular, it was associated with functional improvement
• The younger children/smaller/flexible deformation-the better correction
• After spine maturity SF is necessary- some patients probably can avoid kyphectomy
Conclusion

This treatment seems to be an alternative only for younger patients without severe structural changes in vertebral bodies and with flexible deformation to stop further progression.