

Preliminary Results:

Two Year HRQOL Measures are Similar Between Magnetically-Controlled Growing Rod and Traditional Growing Rod Patients

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Disclosures

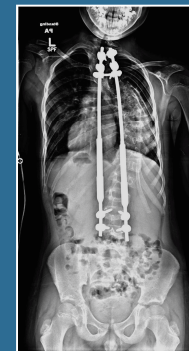
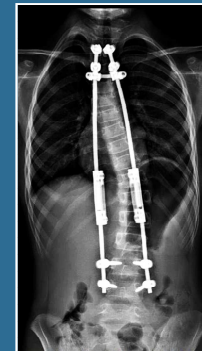
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Introduction

- magnetically-controlled growing rods (MCGR) less surgeries
- Studies have shown radiographic outcomes between MCGR and traditional growing rods (TGR) are similar
- However, little is known about whether there is a difference in HRQoL between the two techniques



Methods

- Multicenter cohort study comparing MCGR and TGR patients HRQoL scores using the EOSQ-24
- All primary MCGR and TGR cases treated from August 2008 to July 2017 were included from two EOS multicenter registries
- EOSQ-24 was administered at pre-op, 6-mo, 12-mo, 24-mo post-operative time points.
- A 10% difference in domain scores between the groups was the minimal clinically important difference (MCID)

Early Onset Scoliosis 24-Item Questionnaire (EOSQ-24)

Center for Pediatric Orthopedic Research
Columbia University Medical Center

 Morgan Stanley
Children's Hospital of NewYork-Presbyterian
Columbia University Medical Center

 Columbia Orthopaedics
Pediatric Orthopaedic Surgery

Results: Demographics

- 132 total patients with 24 Month f/u - Cross Sectional:
 - 69 MCGR
 - 63 TGR
- TGR and MCGR groups had similar:
 - Gender distribution
 - Pre-op age
 - Pre-op major curve size
- MCGR group had more neuromuscular patients (41% vs. 33%)

Results: HRQoL Pre-op

- MCGR pre-operative domain scores Lower:

- **Daily Living**

- **Physical Function**

More neuromuscular

- **Transfer**

Results: HRQoL 24 Month

MCGR & TGR Similar in All Domains

- *General Health*
- *Pain/discomfort*
- *Pulmonary Function*
- *Daily Living*
- *Fatigue Energy*
- *Emotion*
- *Parental Impact*
- *Financial Impact*

Change from Pre-Op → 24 Month HRQoL

	# of Domains >10% improvement	# of Domains unchanged	# of Domains >10% worse
MCGR	Physical Function	6	0
	Daily Living		
TGR	Parental impact	7	0
	Financial Impact		
	General Health		

Discussion/Conclusion

- No Clinically Relevant difference in HRQoL at 24 months post-op MCGR and TGR across all domains
- 7/20 Domains improved, none worsened, no identifiable harm
- Possibly the tool is missing something?

Limitations

- We have not yet reached power analysis target enrollment
- Prospective data collection is ongoing

Thank You

Jeff Pawelek



Michael Vitale



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