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

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Disclosures

- David L. Skaggs, MD, MMM: SRS & POSNA (a); Biomet; Medtronic; Orthobullets; Grand Rounds (b); Zipline Medical, Inc. (b & c); Biomet; Medtronic; Johnson & Johnson (d); Wolters Kluwer Health - Lippincott Williams & Wilkins; Biomet Spine (e)
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- Michael Vitale, MD, MPH: Biomet: (a, b, e); Childrens Spine Foundation (a, e); FOX (e); OREF (a); SRS (a); POSNA (a); OSRF (a); Stryker (b); Wellinks (b)
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- Growing Spine Study Group: Nuvasive (a); EOS biobank (a)
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)
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
  - Transfer

More neuromuscular
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

<table>
<thead>
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<th></th>
<th># of Domains &gt;10% improvement</th>
<th># of Domains unchanged</th>
<th># of Domains &gt;10% worse</th>
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**Did no identifiable harm**
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
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