

EOS Managed by TGR Converted to MCGR:

Is There an Improvement in Quality of Life?



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Disclosures



JM Bauer, P Yorgova, G Neiss, K Rogers - none

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Background + Aims



Benefits of MCGR over TGR:

- **Less operations**

Akbarnia et al. *Spine Deform* 2014

- **Psychologic**

- Aggression, conduct.
- Anxiety
- PTSD

Matsumoto et al *JPO* 2014

Flynn *JPO* 2012, Aslan *Spine Deform* 2017

Sanders et al *JOT* 2005

- **Repeat anesthetic**

- Lower infection rate

Teoh et al. *Spine J* 2016

- Financial savings

- ~3k @ 5yr

Su AW et al. *Spine* 2015



Background + Aims



= ↑ HRQoL

Doany ME et al. *Spine* 2017: EOSQ TGR vs MCGR

- MCGR improved financial burden + satisfaction
- No difference when adjust follow-up duration

Background + Aims



= ↑ HRQoL

TGR to MCGR Converts

Background + Aims

EOSQ-24

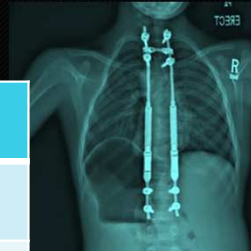
24 item
grouped domains
Validated:

PFTs, age, norm, group/dx,
pre/post-op agreement

Corona J et al. *JPO* 2011.
Matsumoto H et al. *JPO* 2016.

DOMAINS

General Health
Pain/Discomfort
Physical Function
Pulmonary Function
Transfer
Daily Living
Fatigue/Energy Level
Emotion
Parental Burden
Financial Burden
Satisfaction



Study Design



Multicenter retrospective review

- TGR, MCGR, **Converts** (TGR→MCGR)
- **EOSQ-24** pre+post index

Post-hoc sample size assessment

Results



	MCGR	TGR	Converts
N	114	156	32
congenital	10%	14%	13%
idiopathic	18%	19%	19%
intrathecal	3%	4%	3%
thoracogenic	1%	1%	3%
syndromic	30%	32%	38%
other	2%	2%	6%
neuromuscular	37%	27%	22%
Cobb	76	74	79

2.0yr average f/u

Converts:

--f/u: 3.1yr TGR, 1.6yr MCGR

--lengthenings: 3.7 TGR, 6.3 MCGR

Post-hoc power = 94%

p=0.03

p=0.37

Results



Parental Burden, Financial Burden, Satisfaction:

No signif diff 3 groups':

- ave scores
- # increased/decreased
- removing NM
- grouping MCGR+conversion vs TGR
- w/ respect initial Cobb

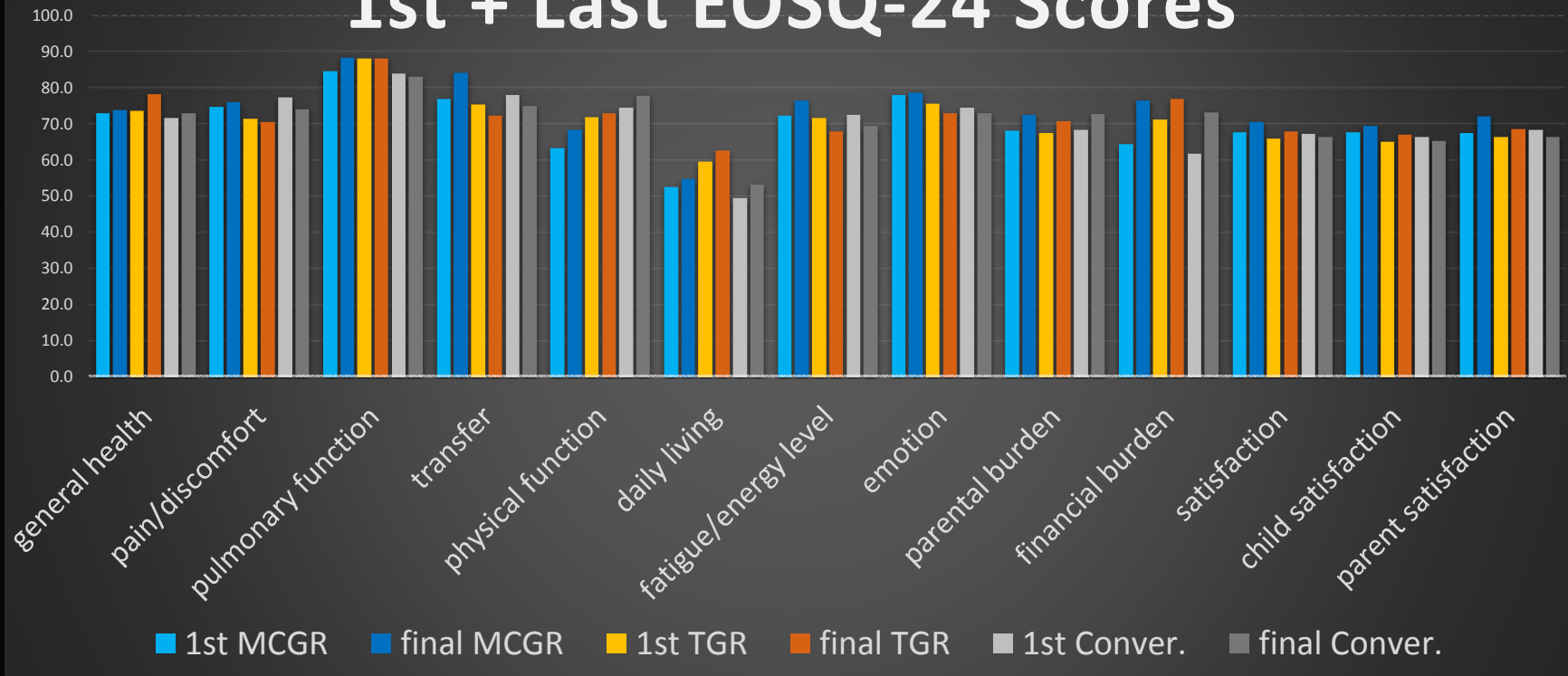
Difference:

- MCGR ave change in Transfer, Fatigue/Energy Level

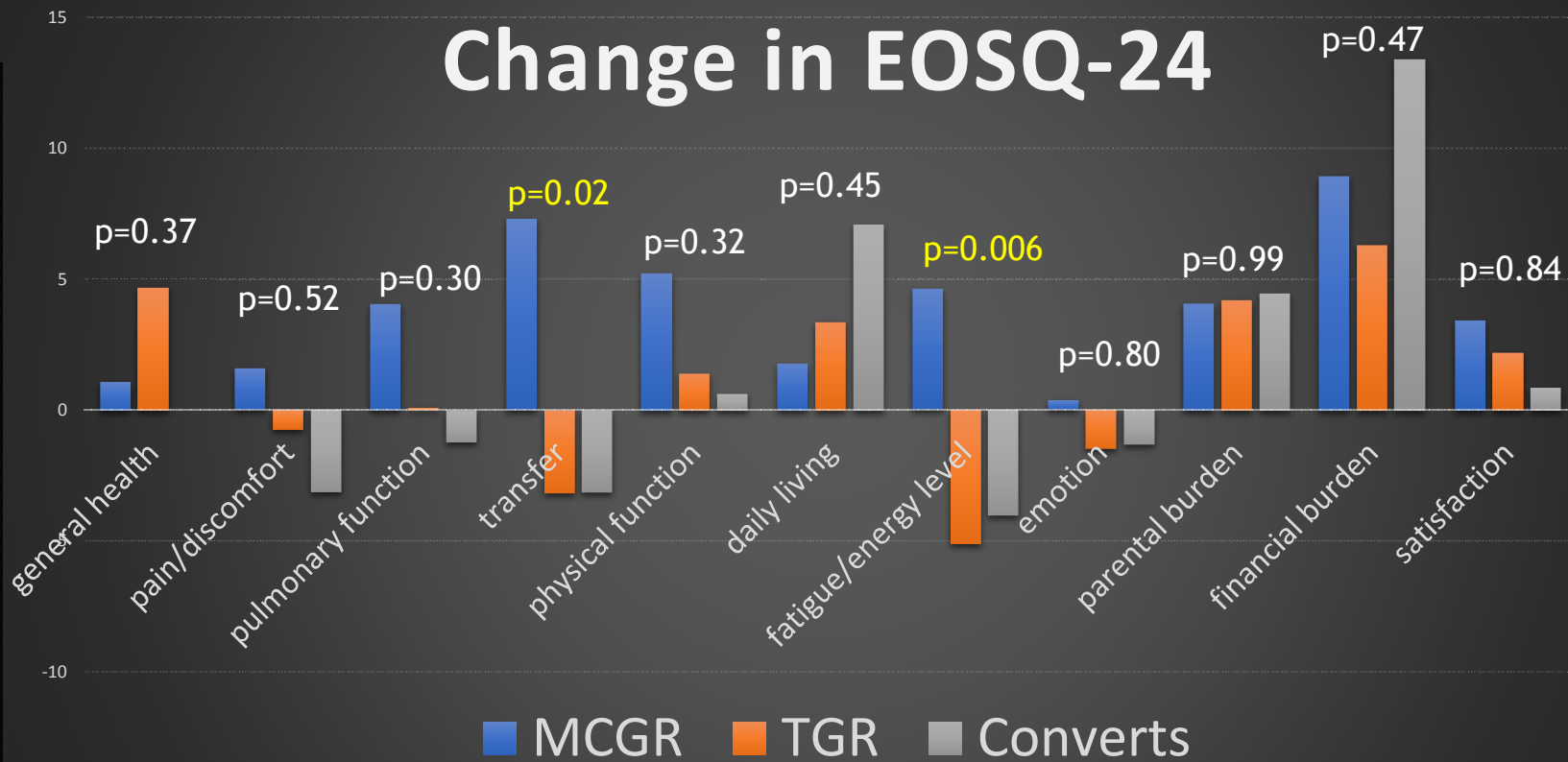
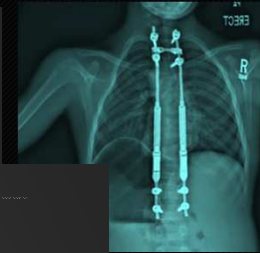
Results



1st + Last EOSQ-24 Scores



Results



Significance + Discussion



Right tool?

Sample size?

Follow-up length?

Burden of disease QoL?

