



# Is the surgery truly beneficial for patients with flaccid neuromuscular scoliosis?

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  - *Disclosure of interest: NO*



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# Introduction



- The benefit in the quality of life patients with flaccid neuromuscular scoliosis (SMA.DMD) after the surgery remains controversial and usually has been relationed with the disease evolution specially in areas relationed with function and satisfaction.
- **Aim** To assess the satisfaction of patients/parents after the scoliosis surgery in flaccid neuromuscular diseases and the clinical and functional changes.



# Material and Methods



- 45 consecutive patients controlled in Outpatients Clinic for Neuromuscular scoliosis operated between 1998 and 2009.
- 44 patients answer the questionnaire (Spanish translation of the questionnaire-K.H.Bridwell Spine 1999) .

[Process measures and patient/parent evaluation of surgical management of spinal deformities in patients with progressive flaccid \*\*neuromuscular scoliosis\*\* \(Duchenne's muscular dystrophy and spinal muscular atrophy\).](#)

Bridwell KH, Baldus C, Iffrig TM, Lenke LG, Blanke K.

Spine (Phila Pa 1976). 1999 Jul 1;24(13

# Material and Methods



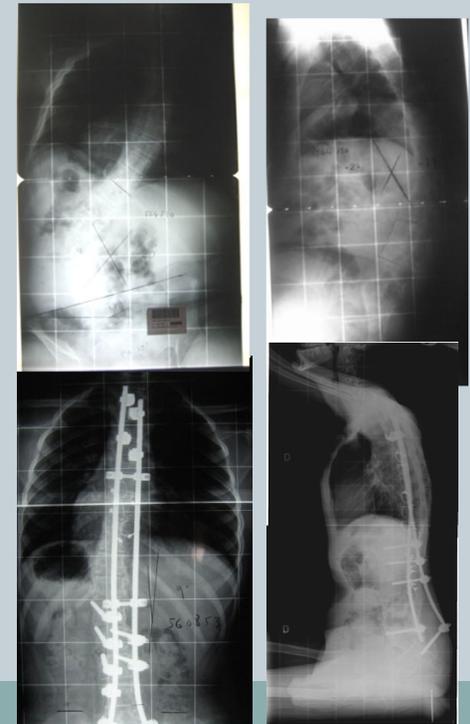
- The questionnaire has 20 questions to evaluate the following categories: Cosmesis: 3 /16;Function: 2 / 4/ 5/ 6/ 7/ 13;Self-image: 17; Pain: 11 Patient Care: 8/14/15; Pulmonary function: 10; Quality of life: 9/18c/18p; Satisfaction: 1/19/20.
- The maximum score is +52 and minimum-36



# Results

- 44 patients answer, 35 males 9 females
- Age at surgery 12,8 years (+/-2) .
- Pathology: Duchenne 22, SMAII 14,CP 3, Miopathy 5
- Radiology (TABLE)

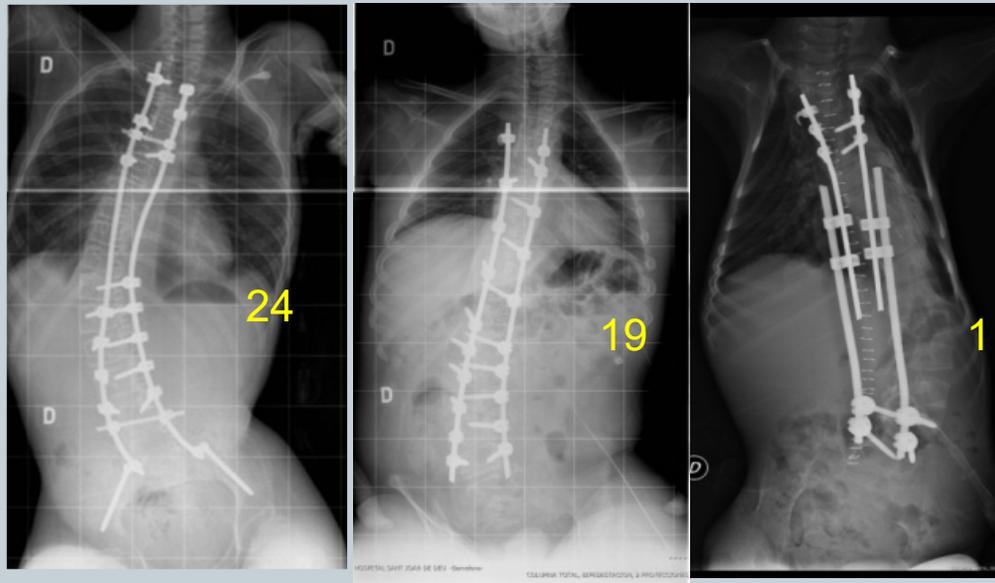
	N	Media	DT	Mín	P25	Mediana	P75	Máy
Previous Cobb	43	69,6	19,7	37,0	53,0	70,0	80,0	110,0
Previous PO	42	15,7	9,2	,0	9,0	14,5	22,0	33,0
Post Cobb	43	26,5	12,8	8,0	16,0	27,0	32,0	68,0
Post PO	43	4,7	5,0	,0	,0	5,0	7,0	21,0



# Results



- Surgical technique Fusion to pelvis 24, to Lumbar 19  
Growing-Rod 1.,
- 33p were non ambulant
- Complications:12 cases (27%)



# Results to the Questionnaire



- **Satisfaction:**

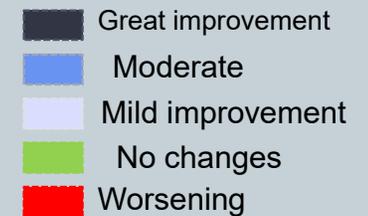
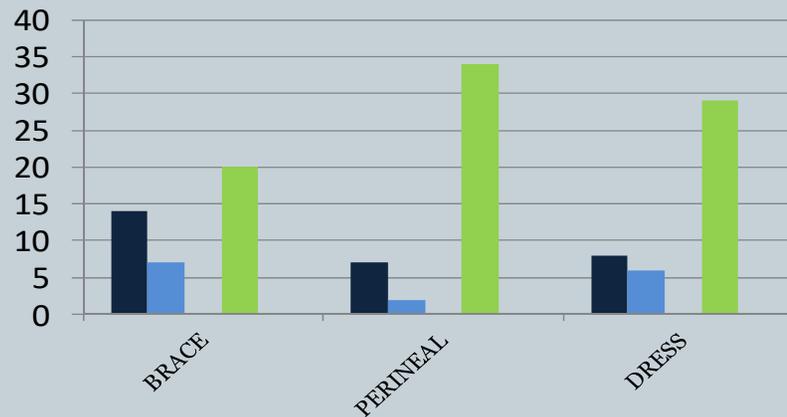
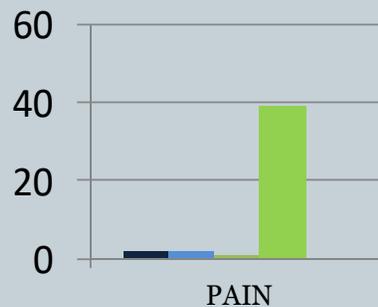
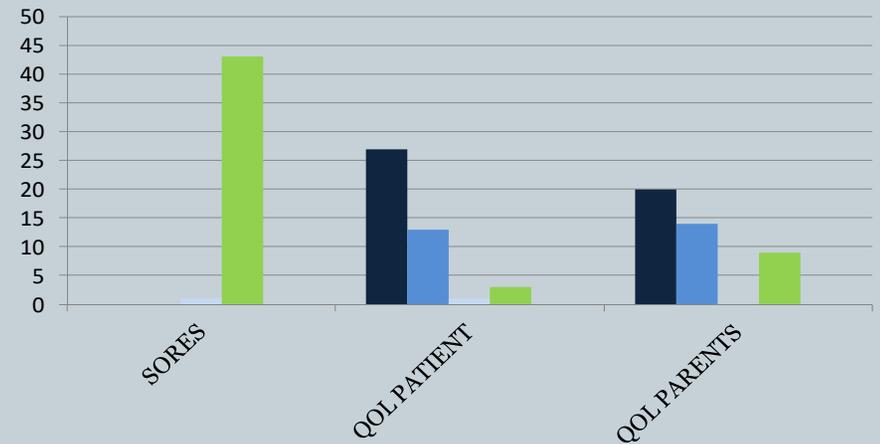
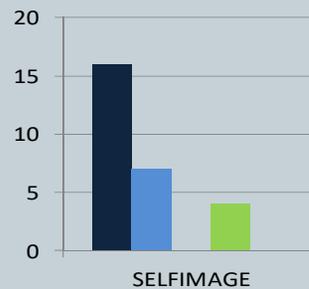
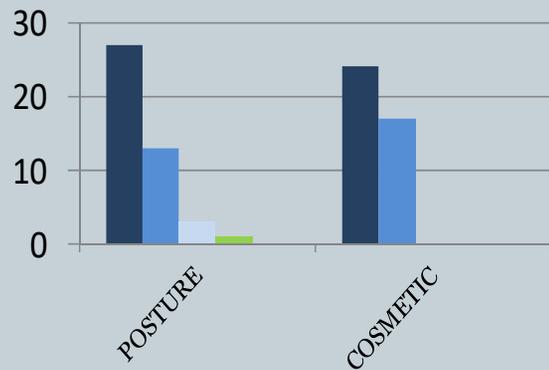
- 91% definitively will operate again their baby
- 82% consider the surgery very successful
- 95.5% definitively will recommend the surgery
- **No negative answer in satisfaction**
- \*No differences in the total score or different areas scores were observed, in the different pathologies and between patients with or without complications.



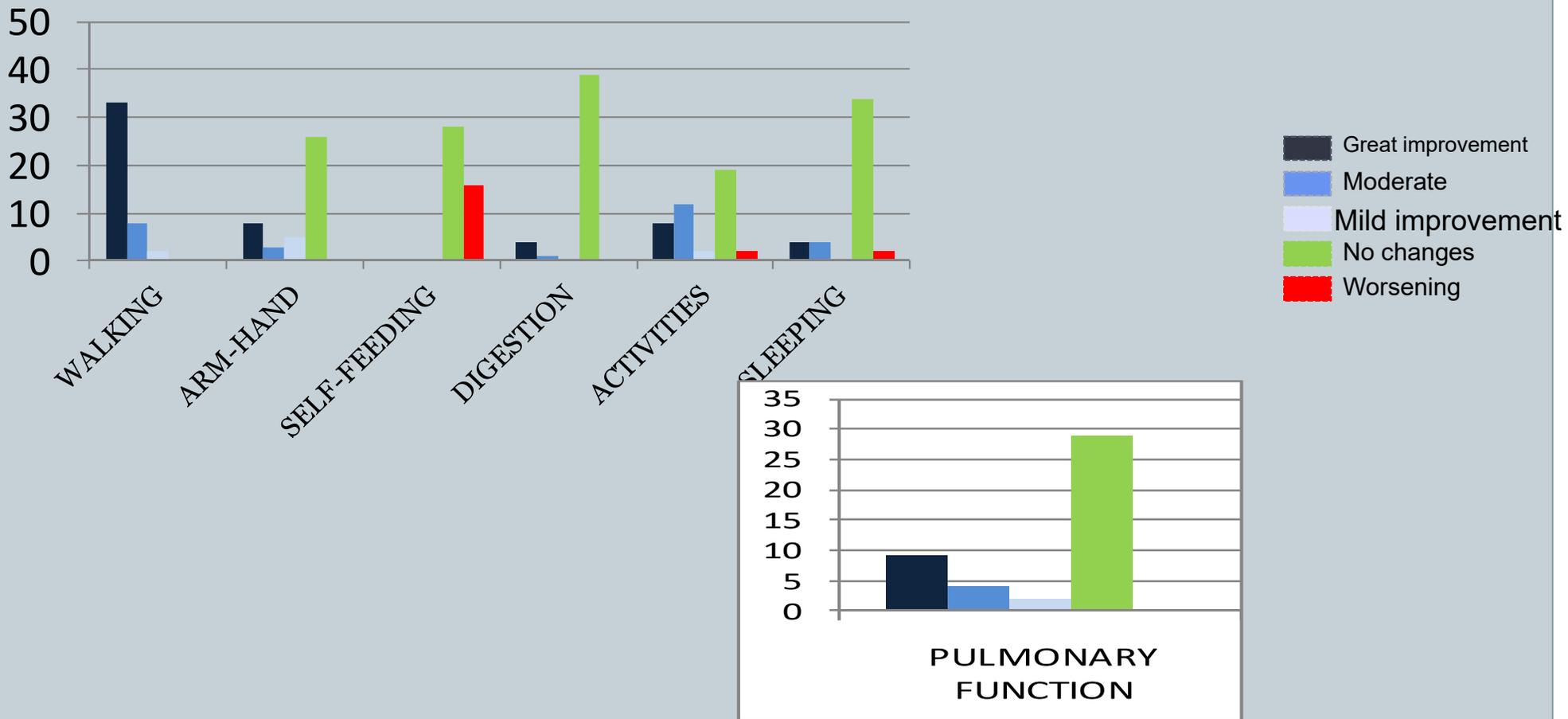
\*No relation between the previous curve degrees and the sitting balance, pulmonary problems or independent feeding.

\*The patients only refer **some negative result in the function area, as can be observed in the questions 5 and 7**

# Questionnaire Results: Responses to change represented by the different areas.



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# Conclusions



- Our data show that the spinal fusion in neuromuscular scoliosis offers benefits in all the patients **but a reduced group of patients can loose some functions (self-feeding, activities, hand use)**
- -We didn't found any differences in the scores comparing the pathologies, or the complicated cases



# References



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