EVALUATION OF THE FACILITY OF USE OF A NEW GROWTH HORMONE ADMINISTRATION DEVICE. STUDY DAGH2014.

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Background

One of the limiting factors in adherence to growth hormone (GH) therapy, is the satisfaction with the administration device used.
With the emergence of a new biosmiliar GH (BGH) administration device, we will assess the ease of use, perceived by the patients.
In adition we assess the perceived pain.

Methods

Prospective open, through survey caregivers and children in treatment with BGH on the simplicity and ease of use and managemet of the device, and pain perceived.
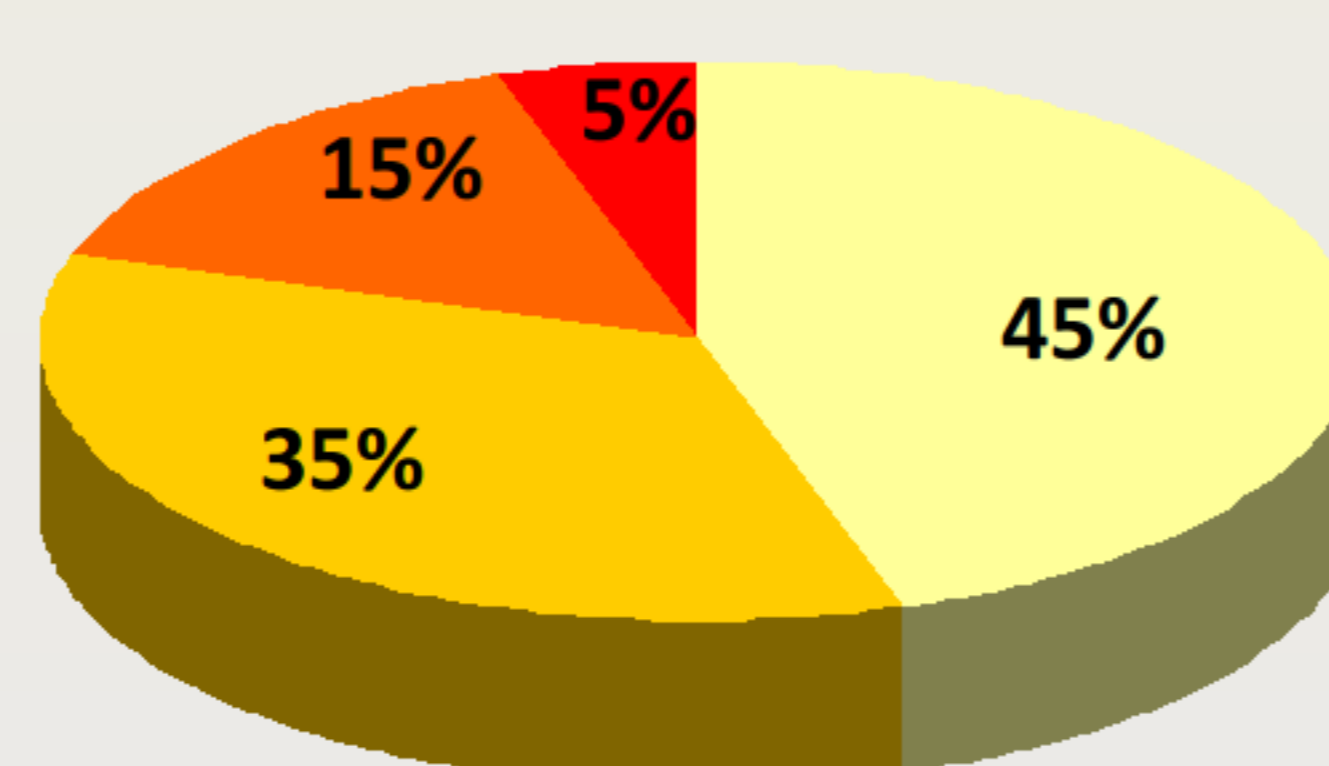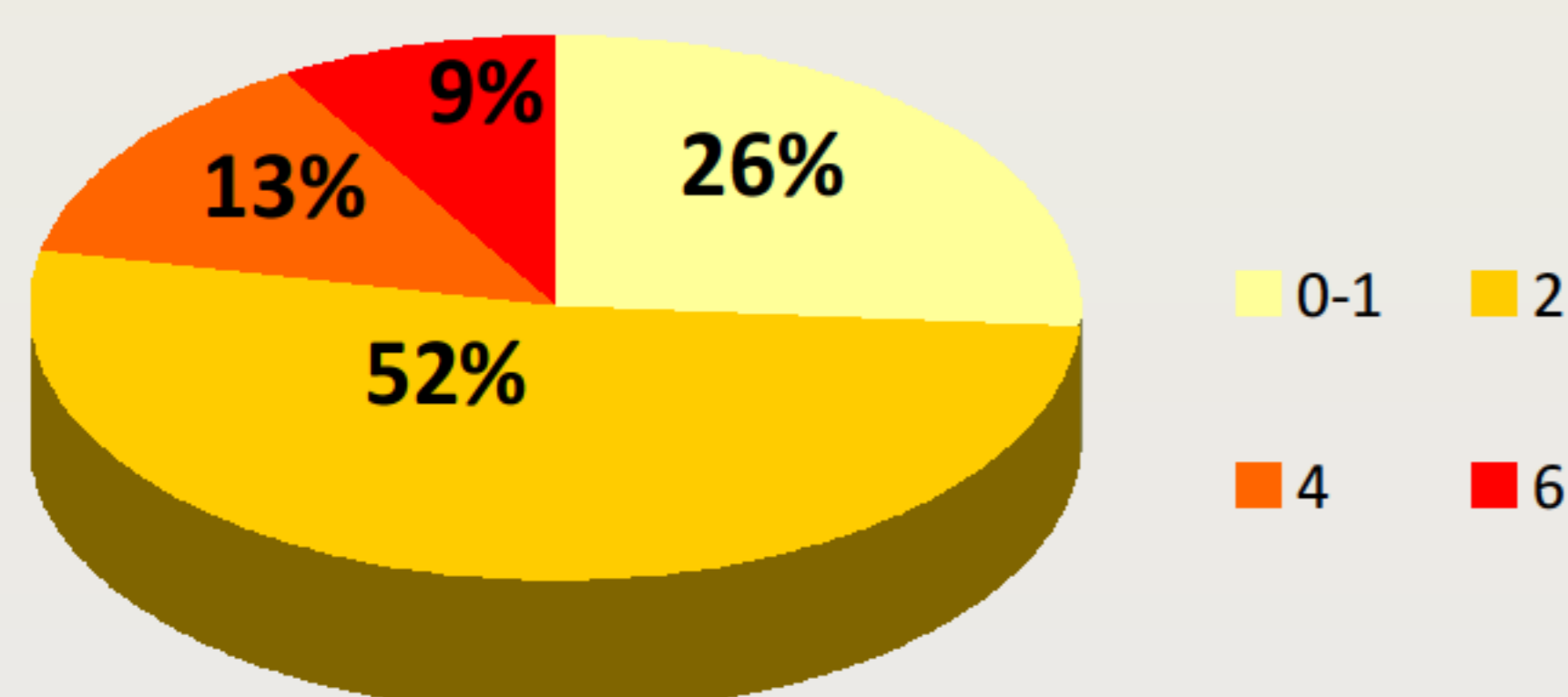▪ Inclusion criteria: a minimum of 6 months with BGH treatment and signed informed consent.
The questionnaire consists of 13 questions with closed answer (very easy, easy, neither easy nor difficult, difficult, very difficult and do not know/no answer/not applicable). And a 14th question about device preference
4 components are analyzed in terms of ease of use: preparation, fixing of the dose, injection of the medication and maintenance. The perception of pain measured by visual analogue scale (VAS) is expressed in numerical score: 10 maximum pain and 0 minimum..
Age, dose, who manage the treatment and injection site were collected too.

Results

23 patients/caregivers were interviewed.
Age range: 5-18 years (average: 10.5 years, DE:2.9). 60,8% were female.
The dose average receiving was 0.78 mg/day.
3 patients didn´t complete the second questionnaire.

33,3% of the patients **increased** their participation in the **self-administration** of medication.
89,5% of the patients prefer the new device and 10,5% the old device.

Pain scale

The average score for the old device was **2.1**, 6 maximum and minimum 0
In 75% of patients, the score was ≤ 2, for the old device. With the new device the average scale was **1,7** (DE: 1,7) and 80% of patients scored ≤ 2.

Differences between old and new device responses.

		Old device n= 23	New device n= 20	p
General scale	Very easy	56,5% (13/23)	70% (14/20)	ns
	Easy	39% (9/23)	30% (6/20)	ns
	Neither easy nor difficult			
	Difficult			
	Very difficult			
Preparation (3 questions)	Very easy	55.1% (38/69)	**73,3%** (44/60)	**P<0.05**
	Easy	33.3% (23/69)	**16,7%** (10/60)	**P<0.05**
	Neither easy nor difficult	8.7% (6/69)	5% (3/60)	ns
	Difficult	1.4% (1/69)	1,7% (1/60)	ns
	Very difficult	1.4% (1/69)		ns
Fixing dose (3 questions)	Very easy	63.8% (44/69)	70% (42/60)	ns
	Easy	26.1% (18/69)	21,7% (13/60)	ns
	Neither easy nor difficult	4.3% (3/69)	3,3% (2/60)	ns
	Difficult	2.9% (2/69)	1,7% (1/60)	ns
	Very difficult			ns
Injection (4 questions)	Very easy	46.7% (43/92)	**66,25%** (53/80)	**P<0.05**
	Easy	31.5% (29/92)	25% (20/80)	ns
	Neither easy nor difficult	11.9% (11/92)	6,25% (5/80)	ns
	Difficult	5.4% (5/92)		ns
	Very difficult	1.1% (1/92)		ns
Maintenance (2 questions)	Very easy	69.6% (32/46)	87,5% (35/40)	ns
	Easy	28.3% (13/46)	10% (4/40)	ns
	Neither easy nor difficult	2.2% (1/46)		ns
	Difficult			
	Very difficult			

Pie chart legend: 0-1, 2, 4, 6

Left pie: 26%, 52%, 13%, 9%
Right pie: 45%, 35%, 15%, 5%

PAIN VISUAL ANALOG SCALE

0 SIN DOLOR — 1 — 2 DOLOR LEVE — 3 — 4 DOLOR MODERADO — 5 — 6 DOLOR SEVERO — 7 — 8 DOLOR MUY SEVERO — 9 — 10 MÁXIMO DOLOR

Conclusions

- The new device analysed has good acceptance among patients.
- Preparation and injection is easier with the new device.
- One of the most important effects is the increase in self-administration.

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ESPE 2015
964--P3
Growth Hormone
MARÍA JOSÉ RIVERO MARTÍN
DOI: 10.3252/pso.eu.54espe.2015
Poster presented at: ESPE 2015 BARCELONA European Society for Paediatric Endocrinology
PosterSessionOnline.com