

Poster presentation

## Grading of joint indices for severity reflects better the burden of joint disease and its impact on child's well-being in juvenile idiopathic arthritis (JIA)

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### Background and aim

The severity of joint disease in JIA can be quantified by counting the number of joints with swelling, tenderness/pain on motion, and restricted motion, and by calculating, through these parameters, the number of active joints (NAJ). Alternatively, a global articular severity score (GASS) can be obtained by grading symptoms in each joint and summing the scores obtained in all joints. Although the former method is currently preferred, it is unclear which method is more advantageous to capture the impact of joint disease on child's health and well-being. We aimed to compare the ability of NAJ and GASS to capture the impact of joint disease on child's health and well-being by assessing their correlation with physician's, parent's and patient's subjective ratings and functional ability assessment.

### Methods

Thirty-four JIA patients underwent a standardized joint assessment and had both NAJ and GASS calculated. Correlation of NAJ and GASS with physician's, parent's and patient's global rating, parent's and patient's pain rating, and functional ability assessment through the Juvenile Arthritis Functionality Scale (JAFS) was evaluated using Spearman's correlation coefficient.

### Results

Table 1 shows Spearman's correlations between global joint scores and other JIA outcome parameters.

### Conclusion

All correlations were greater for the GASS than for the NAJ, suggesting that the GASS reflects better the burden of joint disease and its impact on child's well-being.

**Table 1: Spearman's correlations between global joint scores and other JIA outcome parameters.**

	MD global	Parent global	Patient global	Parent pain	Patient pain	JAFS parent	JAFS patient
NAJ	0.49	0.18	0.17	0.24	0.35	0.43	0.35
GASS	0.69	0.42	0.38	0.50	0.51	0.52	0.60

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