

Poster presentation

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## Evaluation of the power of six clustering features in identifying a homogeneous disease subset in juvenile idiopathic arthritis (JIA)

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### Background

The ILAR classification of JIA represents a work in progress. It has been suggested that patients with clustering features of early onset, female prevalence, asymmetric arthritis, positive ANA, and risk of iridocyclitis constitute a homogeneous entity, irrespective of the course of joint disease.

### Objective

To compare power of each clustering feature in identifying a homogeneous disease subgroup in JIA.

### Methods

All patients seen in study centers between 1983 and 2004 (N = 750) were classified according to ILAR criteria. Categories of systemic arthritis, RF-positive polyarthritis, and enthesitis related arthritis were excluded because it was felt they represent sufficiently homogeneous entities. Patients in the remaining categories (oligoarthritis persistent and extended, RF-negative polyarthritis, psoriatic arthritis and undifferentiated arthritis) were grouped together (N = 603). In each patient, the presence of the 6 clustering features was assessed. The relative power of each clustering feature in identifying a homogeneous disease subgroup was examined by assessing its ability to separate patients by the presence of the remaining clustering features.

### Results

The ANA revealed the greatest power in separating patients with or without the other clustering features (see table 1),  $p < 0.01$ .

### Conclusion

The ANA status revealed the strongest ability in identifying the disease subgroup characterized by the presence of clustering features. The optimal threshold for ANA positivity needs to be defined.

**Table 1:**

	ANA Pos	ANA Neg
Mean onset age (years)	3.9	6.8
Patients with onset age < 6 years (%)	81.3	45.9
Females (%)	80.0	68.8
Asymmetric arthritis at 6 months (%)	78.4	63.2
Iridocyclitis (%)	25.4	1.9

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