

# Acute Rheumatic Fever – Review of the Previous 40 Years and A Critical Appraisal of the Jones Criteria: A Single-Center Experience

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# Disclosure

- None

# *Methods & Materials*

- Patients with a diagnosis of ARF at Ondokuz Mayıs University Faculty of Medicine, Department of Pediatric Cardiology, between 1978-2016 were retrospectively evaluated.
- Assessments were separated into 4 time periods as 1978-1988, 1990-2001, 2001-2011 and 2011-2016 to reflect the temporal trends.
- Diagnostic criteria have been updated according to the revisions by American Heart Association in 1992 and 2015 and by World Health Organization in 2003.

# Results – 885 patients

	Period				Total
	1978-1988 (n=281)	1990-2001 (n=309)	2001-2011 (n=198)	2011-2016 (n=97)	1978-2016 (n=885)
<b>Demographic characteristics</b>					
F/M (%)	62/38	53/47	47/53	55/45	55/45
Age (mean±SD)	11.0±0.2	10.4±2.9	10.6±2.9	10.9±2.8	
<b>Isolated major criteria</b>					
Carditis (%)	44.8	16.8	18.1	58.3	30.5
Arthritis (%)	35.9	29.1	10.6	8.4	30.5
Chorea (%)	6.0	0.6	0.5	-	2.3
Erythema marginatum (%)	-	-	-	-	-
Subcutaneous nodules (%)	-	-	-	-	-
<b>Combined major criteria</b>					
Arthritis+ Carditis (%)	10.3	4.9	27.7	18.7	28.6
Arthritis+ Chore (%)	0.71	-	-	-	0.2
Carditis + Erythema marginatum (%)	0.71	-	-	2.1	0.5
Carditis + Chore (%)	0.35	3.9	3	12.5	3.5
Arthritis+ Erythema marginatum (%)	0.35	0.3	-	-	0.2
Carditis + Subcutaneous nodules (%)	0.35	-	-	-	0.1
Arthritis+ Carditis + Subcutaneous nodules (%)	0.35	-	-	-	0.1
Arthritis+ Carditis + Erythema marginatum (%)	-	0.3	-	-	0.1
Arthritis+ Carditis+ Chore (%)	-	-	1.5	-	0.3

# Incidence rates

Period	ARF	RHD
June 1978 – June 1988	350/100000	200/100000
January 1990 – December 2001	295/100000	200/100000
January 2001 – March 2011	284/100000	250/100000
March 2011 – January 2016	164/100000	150/100000

# Prognosis

- In the first two decades, acute rheumatic fever recurrence was 17.6%, with regular prophylaxis this rate decreased to 5,7% in the last two decades.
- Recent treatments resulted with cure in 55.7% of cases, and the need for surgery decreased from 8.7% to 1%.

# *Conclusions*

- According to our findings, major complications and mortality have been controlled substantially over time, but incidence rates are still high.
- In the recent years recurrence rates have decreased with regular prophylaxis. Particularly subcutaneous nodules decreased to undetectable rates.