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[Heart rate variability in patients with ankylosing spondylitis (Bekhterev's disease)].

[Article in Russian]

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Abstract

AIM: To study autonomous regulation of cardiac activity in patients with alkylosing spondylitis (AS) according to heart rate variability.

MATERIAL AND METHODS: A total of 51 male patients aged 35.4 +/- 7.3 years with verified AS participated in the trial. Patients with manifest cardiovascular pathology, disturbances of cardiac rhythm or conduction were not included. All the patients were screened for basic cardiovascular risk factors. AS activity was studied with a clinical index BASDAI and acute phase indices. HRV was analysed by 5-min at rest ECG fragments. The control group consisted of 23 healthy males at the age 35.7 +/- 11.5 years matched by basic cardiovascular risk factors with AS patients.

RESULTS: Basic time and frequency HRV parameters were much lower in AS patients than in healthy controls. A significant negative correlation was found between HRV parameters and acute phase parameters (ESR, C-reactive protein, fibrinogen) evidencing for a significant impact of persistent systemic inflammation on autonomic regulation of cardiac activity consisting in regress of parasympathic and/or enhancement of sympathetic activity and leading to reduction of HRV in AS patients.

CONCLUSION: AS patients have abnormal autonomic regulation of cardiac activity manifesting with subnormal HRV. This is closely related with the activity of systemic inflammation. Reduced HRV may be one of the factors of a high cardiovascular risk in AS patients.

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[Indexed for MEDLINE]

Publication type, MeSH terms, Substances

Publication type

English Abstract

MeSH terms

AdultC-Reactive Protein/analysisFibrinogen/analysis

[Heart Rate/physiology*](#)

[Humans](#)

[Male](#)

[Spondylitis, Ankylosing/physiopathology*](#)

Substances

[Fibrinogen](#)

[C-Reactive Protein](#)

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