
Abstract:
This consensus statement has been compiled on behalf of the International Society for Holter and Noninvasive Electrophysiology. It reviews the topic of heart rate turbulence (HRT) and concentrates on technologies for measurement, physiologic background and interpretation, and clinical use of HRT. It also lists suggestions for future research. The phenomenon of HRT refers to sinus rhythm cycle-length perturbations after isolated premature ventricular complexes. The physiologic pattern of HRT consists of brief heart rate acceleration (quantified by the so-called turbulence onset) followed by more gradual heart rate deceleration (quantified by the so-called turbulence slope) before the rate returns to a pre-ectopic level. Available physiologic investigations confirm that the initial heart rate acceleration is triggered by transient vagal inhibition in response to the missed baroreflex afferent input caused by hemodynamically inefficient ventricular contraction. A sympathetically mediated overshoot of arterial pressure is responsible for the subsequent heart rate deceleration through vagal recruitment. Hence, the HRT pattern is blunted in patients with reduced baroreflex. The HRT pattern
is influenced by a number of factors, provocations, treatments, and pathologies reviewed in this consensus. As HRT measurement provides an indirect assessment of baroreflex, it is useful in those clinical situations that benefit from baroreflex evaluation. The HRT evaluation has thus been found appropriate in risk stratification after acute myocardial infarction, risk prediction, and monitoring of disease progression in heart failure, as well as in several other pathologies.

Zeitschriftentitel / Abkürzung:
J Am Coll Cardiol

Jahr:
2008

Band:
52

Heft / Issue:
17

Seiten:
1353-65

Sprache:
eng

Pubmed:

Print-ISSN:
0735-1097

TUM Einrichtung:
I. Medizinische Klinik und Poliklinik

Occurences:
- Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > I. Medizinische Klinik und Poliklinik (Kardiologie) > 2008

entries: