with sensitivities of 90% and 80% and specificities of 94% and 73%, respectively.

Conclusions: Both VCG descriptors were significantly affected by thrombolysis in patients with AMI, but constituted only moderate markers of thrombolysis efficacy compared to the ST segment resolution.

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Slow controlled respiration favourably influences haemodynamics and cardiac autonomic control
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Purpose: Abnormalities in baroreflex have been linked to adverse outcome in cardiac patients. It was also demonstrated that 6-breaths/min respiration may increase arterial baroreflex sensitivity (BRS) in healthy subjects and in patients with chronic heart failure.

Methods: A total of 414 subjects were divided into 3 groups: 124 healthy subjects (85 males, aged 38 ± 11 yrs); 107 patients with essential hypertension (EH, 59 males, aged 49 ± 10 yrs, blood pressure 161 ± 2893 ± 14 mmHg); and 183 patients with coronary artery disease (CAD, 161 males, aged 58 ± 9 yrs, 57 with left ventricular dysfunction = ejection fraction 30 ± 7%). Each subject underwent ECG and finger arterial pressure (Finapres) recording in a supine position at baseline (5 min of spontaneous respiration) and during 3 min of slow controlled respiration (SCR) at 0.1 Hz. BRS was established by cross-spectral analysis in low-frequency band. Beat-to-beat stroke volume and aortic pressure were computed from finger arterial pressure waveform by the means of a non-linear, three-element model of the aortic input impedance (Beatoscope, FMS).

Results: SCR induced consistent changes of investigated variables in all groups. The results in the Table are shown as percentage shift during SCR relative to spontaneous respiration. The reduction in aortic systolic blood pressure (SBP) during SCR was significantly greater (p < 0.0001) than the reduction in finger SBP.

<table>
<thead>
<tr>
<th>Healthy</th>
<th>p</th>
<th>EH</th>
<th>p</th>
<th>CAD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean RR</td>
<td>-4.7%</td>
<td>&lt;0.00001</td>
<td>-3.4%</td>
<td>&lt;0.00001</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Finger SBP</td>
<td>-2.3%</td>
<td>0.0002</td>
<td>-3.8%</td>
<td>0.0003</td>
<td>-2.4%</td>
</tr>
<tr>
<td>Aortic SBP</td>
<td>-3.1%</td>
<td>&lt;0.00001</td>
<td>-5.3%</td>
<td>&lt;0.00001</td>
<td>-3.1%</td>
</tr>
<tr>
<td>SV</td>
<td>+1.5%</td>
<td>NS</td>
<td>-0.2%</td>
<td>NS</td>
<td>+0.9%</td>
</tr>
<tr>
<td>CO</td>
<td>+6.9%</td>
<td>&lt;0.00001</td>
<td>+3.1%</td>
<td>0.0003</td>
<td>+3.2%</td>
</tr>
<tr>
<td>SVR</td>
<td>-9.7%</td>
<td>&lt;0.00002</td>
<td>-6.6%</td>
<td>0.0006</td>
<td>-6.4%</td>
</tr>
<tr>
<td>BRS</td>
<td>+50.9%</td>
<td>&lt;0.00001</td>
<td>+48.6%</td>
<td>&lt;0.00001</td>
<td>+56.1%</td>
</tr>
</tbody>
</table>
SV: stroke volume; CO: cardiac output; SVR: systemic vascular resistance

Conclusions: Previously reported SCR-induced increase of BRS in healthy subjects and cardiac patients has been observed in patients with EH. Moreover, potential beneficial effect on cardiac autonomic control was consistently associated with favourable haemodynamic changes. This finding might have practical implication for cardiac rehabilitation programs.

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Suppressive effect of isoflurane on U wave in anesthetized patients
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Purpose: although the physiological and pathological roles of U wave in ECG have been widely noticed, the present competing hypotheses could not adequately explain the genesis of U wave. Isoflurane, one of the clinically used volatile anesthetics, could inhibit transsarcolemmal Ca influx and afterdepolarizations in in-vitro experiments. The present study was therefore to evaluate the possible effects of isoflurane on U wave in human beings.

Methods: perioperative ECG recordings (lead II) were collected and analyzed from 186 gynecologic patients (20 to 70 years old, ASA class I). Anesthesia was induced with thiopental, fentanyl and succinylcholine and maintained with isoflurane and O₂. U wave amplitude was measured from amplified ECG records manually.

Results: discernible U wave in variable size could be identified in 79% of the patients. A negative correlation between RR interval and U wave amplitude was larger in extrasystolic beats (467 ± 146% of the control, n = 7, p < 0.05). Isoflurane (1 to 1.5 MAC) significantly and reversibly suppressed UAMP (a decrease by 44 ± 19 μV, n = 20, p < 0.05) (figure). Similar results were observed in other gynecologic patients receiving sevoflurane and desflurane.

Conclusion: the inhibitory action of isoflurane on UAMP suggests a role of afterdepolarizations and intracellular Ca overload on the genesis of U wave in ECG.

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T-wave inversion and QT prolongation after RF ablation of focal atrial tachycardia originating from the roof of the left atrium
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Purpose: application of radiofrequency (RF) energy to the endocardium can produce transmural lesions, which may determine interruption of sympathetic and/or vagal innervation and which raises the concern of possible damage to the epicardial coronary arteries.

Methods: we report the case of a 65 years old woman without heart disease, admitted to the hospital for an episode of recurrent atrial fibrillation. She was treated with propafenon and externally cardioverted without success. One day later the ECG turned to incessant atrial fibrillation (AT) with a mean cycle length of 543 msec. Flecaainide and beta-blockers were not effective. The T wave during AT was + in all the ECG leads.