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The determination of the level of spinal cord injury according to the measurement of skin resistance

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The aim of this study was to develop a quantitative skin resistance test (QSRT) that could be used for the assessment of the level of sci, especially in unconscious sci patients. Skin resistance (SR) of the key points was measured in 10 control subjects and in 10 sci patients, between C3 and S3 bilaterally. SR was measured by an ohmmeter as Kohm. The level of sci according to QSRT results was determined for right and left as the most caudal spinal segment within the range considered to be normal according to the values of control subjects. This level was then compared with clinical sensory level derived from ASIA standarts. In the control group, QSRT values varied between 50 and 600 Kohm. There was not a strong correlation between corresponding right and left dermatomes and repeated assessments. The SRs of the key points above the level of sci were comparable with the values of the control group while the SRs under the level of sci were very high (above 1000 Kohm). The level of sci according to QSRT and clinical sensory testing was the same in paraplegics. QSRT seemed to be a simple, non-expensive way of assessing the level of sci.