

原著

看護ケア中の電気刺激によって誘発された痛みの感受性と痛み反応

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Sensitivity and Response to Electrically Evoked Pain During Nursing Care

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Abstract

This study was carried out to measure pain sensitivity and response during nursing care, and to clarify the relationship between pain sensitivity and response. Seventeen healthy female students consented to participate in the experiment. The subjects, supine on beds, were attached to devices for recording electrocardiograms (ECG), local sweat volumes and skin temperatures. Hot compresses, music therapy, massage and association games were used as nursing cares in this study. RR intervals on the ECG and sweat volumes were analysed during nursing care, with and without electrical stimulation. Experimental pain was evoked in the left anterior cubital region by an electric stimulator. The stimulus intensity was set at 60~70 on the Visual Analogue Scale of pain (VAS). The subjects assessed the amount of pain experienced using the VAS. This study confirmed that both sweat volume and RR interval changed when the pain stimulus was applied and that there was little adaptation to the pain. Also, it is clear that human interaction during nursing care, such as massage and association game, is an important factor for analgesia.

要約

看護ケア中の痛みの主観的評価と痛み反応を観察するとともに、両者の関係を明らかにする目的で実験を行った。被験者は承諾の得られた健康な女子学生17名であった。ベッド臥床した被験者の心電図、局所発汗量、皮膚温を記録した。看護ケアとして温罨法、マッサージ、音楽療法、会話に代わるものとしての連想ゲームの4種類を用いた。看護ケアのみのときと、ケア中に電気刺激したときの局所発汗量と心電図RR間隔に現れる反応を分析した。左前肘部皮膚を Visual Analogue Scale (VAS) で60～70の強さに電圧を固定して電気刺激を行い、実験中の痛みをVASで評価させた。その結果、発汗量や心電図RR間隔は疼痛時に一過性に変化すること、これらの痛み反応は順応しにくいこと、マッサージや連想ゲームなどの人的相互作用の密なケアはそうでないケアより鎮痛効果が大きいことが明らかになった。
