

The myofascial trigger point region: correlation between the degree of irritability and the prevalence of endplate noise.

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OBJECTIVE: This study was designed to investigate the correlation between the irritability of the myofascial trigger point (MTrP) and the prevalence of endplate noise (EPN) in the MTrP region of human skeletal muscle.

DESIGN: Twenty normal subjects with latent MTrPs and 12 patients with active MTrPs in the upper trapezius muscles were recruited for this study. The patients reported the subjective pain intensity of the active MTrP (0-10). The MTrP and an adjacent non-MTrP site were confirmed and marked for the measurement of pressure pain threshold (with a pressure algometer) and the prevalence of EPN (with electromyographic recordings).

RESULTS: The prevalence of EPN in the MTrP regions was significantly higher ($P < 0.01$) in the active MTrPs than in the latent ones. However, no EPN could be found in the non-MTrP region near either the active or the latent MTrPs. The pain intensity and the pressure pain threshold were highly correlated with the prevalence of EPN in the MTrP region ($r = 0.742$ and -0.716 , respectively).

CONCLUSIONS: The irritability of an MTrP is highly correlated with the prevalence of EPN in the MTrP region of the upper trapezius muscle. The assessment of EPN prevalence in an MTrP region may be applied to evaluate the irritability of that MTrP.

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