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Impaired anal sphincter function in professional cyclists.

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BACKGROUND: The purpose of our study was to assess anal function in professional mountain bikers, as an increasing number of cycling enthusiasts report functional and morphological problems in the anal region. We tried to find out if constant saddle vibration suffered by professional cyclists could lead to defecation disorders.

METHODS: 19 professional male mountain bikers took part in this study. The findings were compared with those of a control group (CG) of healthy volunteers who rode bikes less frequently. Both groups underwent rectal examination and anorectal manometry. Rectal sensation, rectal compliance and the anorectal inhibitory reflex were also assessed. Information on anal pain, blood on the toilet tissue, history of hemorrhoids, anal fissure, abscess formation and problems with defecation was collected by questionnaire and local examination was carried out. **RESULTS:** Sphincter resting pressures (89 +/- 27 mmHg vs CG: 69 +/- 16 mmHg), squeeze pressures (137 +/- 36 mmHg vs CG: 96 +/- 19 mmHg) and sphincter volumes (resting vector volume: 513 +/- 277 cc vs CG 273 +/- 170 cc, squeeze vector volume: 1389 +/- 867 cc vs CG: 490 +/- 219 cc) were significantly higher in the professional mountain bikers. Values reflecting rectal sensation (sensory threshold: 51 +/- 32 ml vs CG: 46 +/- 12 ml) were not significantly different between the groups. **CONCLUSION:** Proctological problems are very common in professional mountain bikers. Permanent microtrauma through constant saddle vibration may lead to chronic inflammation and anal fissure resulting in anal pain and therefore high sphincter pressure. Muscle hypertrophy as a consequence may lead to defecation disorders.