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A B S T R A C T S

OVERUSE INJURIES OF THE HAND IN CZECHOSLOVAK SPORT CLIMBERS

Ivan ROTMAN, Milan STANĚK, Tomáš SKŘIČKA, Pavel VESELÝ, Jana
HYLMAROVÁ, Jan BUŠÍK

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Overuse Injuries of the Hand in Czechoslovak Sport Climbers

I. Rotman M. Staněk, T. Skřička, P. Veselý,
J. Hylmarová, J. Bušik; Medical Commission of the Czechoslovak
Mountaineering Association, Prague

The adverse effects of chronic overloading upon sport climbers' fingers are already well documented (Clarke, Burtscher, Feldmeier, Jenny, Léal, Bartschi). Our previous study showed that the prevalence of finger injuries amounts to at least 40%. The purpose of this field investigation of climbers taking part in extreme climbing competitions has been the identification of predisposing factors. It was attempted by an evaluation (using physical orthopaedic examination of the hand) of the character and prevalence of the injuries by a modified questionnaire (Bartschi, Radlinger) and the assessment of training methods, climbing performance and experience.

Only 24 out of 100 climbers had no complaints in the upper extremities, 69 % complained long-lasting pain, 51 X in fingers only. Fusiform swellings, nodes and flexion deformities of the finger joints were present in 44 %. The most affected were the 3rd and the 4th finger, especially the proximal interphalangeal joint of the 3rd finger. However, both parameters - pain and/or deformities - were observed in 52 out of 69 climbers (75 %) surmounting range from 8 climbing (UIAA), free climbs.

The climbers with painful fingers and/or finger deformities were slightly older (22.9 A 5.1 vs. 20.9 ± 3.3 years, V0.05), climbed less frequently (in summer 3.0 ± 1.6 vs. 3.5 ± 1.5 days a week, n.s.; in winter 1.2 ± 0.9 vs. 1.8 ± 1.3 days a week, V0.05). practised specialized strength training more frequently than climbers without these symptoms (2.8 ± 1.8 vs. 1.4 ± 1.1 training days a week, V0.01) and decreased or stopped climbing less frequently (V0.05). Because of extremely difficult treatment of finger overuse injuries, problems of prevention are of great importance to sport climbers. This especially concerns the structure, frequency and intensity of training.