Chronic wrist pain among handstand practitioners. A questionnaire study.

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Abstract : Introduction: The human body is designed for upright standing and walking, with the lower extremities and axial skeleton supporting weight-bearing. Constant weight-bearing on joints not meant for this action can lead to various pathologies, as seen in wheelchair users. Handstand practitioners use their wrists as weight-bearing joints during activities, but little is known about wrist injuries in this population. This study aims to investigate the epidemiology of wrist pain among handstand practitioners, as no such data currently exist. Methods: The study is a cross-sectional online survey conducted among athletes who regularly practice handstands. Participants were asked to complete a three-part questionnaire regarding their workout regimen, training habits, and history of wrist pain. The inclusion criteria were athletes over 18 years old who practice handstands more than twice a month for at least 4 months. All data were collected using Google Forms, organized and anonymized using Microsoft Excel, and analyzed using IBM SPSS 26.0. Descriptive statistics were calculated, and potential risk factors were tested using asymptotic t-tests and Fisher's tests. Differences were considered significant when $p < 0.05$. Results: This study surveyed 402 athletes who regularly practice handstands to investigate the prevalence of chronic wrist pain and potential risk factors. The participants had a mean age of 31.3 years, with most being male and having an average of 5 years of training experience. 56% of participants reported chronic wrist pain, and 14.4% reported a history of distal radial fracture. Yoga was the most practiced form, followed by Capoeira. No significant differences were found in demographic data between participants with and without chronic wrist pain, and no significant associations were found between chronic wrist pain prevalence and warm-up routines or protective aids. Conclusion: The lower half of the body is meant to handle weight-bearing and impact, while transferring the load to upper extremities can lead to various pathologies. Athletes who perform handstands are particularly prone to chronic wrist pain, which affects over half of them. Warm-up sessions and protective instruments like wrist braces do not seem to prevent chronic wrist pain, and there are no significant differences in age or training volume between athletes with and without the condition. Further research is needed to understand the causes of chronic wrist pain in athletes, given the growing popularity of sports and activities that can cause this type of injury.

Keywords : handstand, handbalance, wrist pain, hand and wrist surgery, yoga, calisthenics, circus, capoeira, movement.
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