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a pilot randomised controlled trial with 510 athletes

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Freier Vortrag

Effectiveness of Spraino for preventing lateral ankle sprain injuries in indoor sports: a pilot randomised controlled trial with 510 athletes

Thema: Interventionsforschung

Filip Gertz Lysdal¹

Thomas Bandholm², Janne Tolstrup³, Mikkel Clausen⁴, Stephanie Mann⁵, Pelle Baggesgaard Petersen⁶, Thor Grønlykke⁷, Uwe Kersting⁸, Eamonn Delahunt⁹ and Kristian Thorborg¹⁰

¹ Aalborg University

² Amager-Hvidovre Hospital, Copenhagen University, Physical Medicine and Rehabilitation Research - Copenhagen (PMR-C), Department of Physical and Occupational Therapy, Clinical Research Centre, and Department of Orthopedic Surgery, Hvidovre, Denmark

³ University of Southern Denmark, National Institute of Public Health, Copenhagen, Denmark

⁴ School of Physiotherapy, Faculty of Health and Technology, University College Copenhagen: 6Amager-Hvidovre Hospital, Copenhagen University, Department of Orthopedic Surgery, Sports Orthopedic Research Center - Copenhagen (SORC-C), Hvidovre, Denmark

⁵ 3Amager-Hvidovre Hospital, Copenhagen University, Physical Medicine and Rehabilitation Research - Copenhagen (PMR-C), Department of Physical and Occupational Therapy, Clinical Research Centre, and Department of Orthopedic Surgery, Hvidovre, Denmark

⁶ Rigshospitalet, Copenhagen University, Section for Surgical Pathophysiology 7621, Copenhagen, Denmark

⁷ Spraino ApS, Copenhagen, Denmark

⁸ Aalborg University, Sport Sciences, Department of Health Science and Technology, Aalborg, Denmark; University College Dublin, Institute for Sport and Health, Dublin, Ireland

⁹ University College Dublin, School of Public Health, Physiotherapy and Sports Science, Dublin, Ireland/University College Dublin, Institute for Sport and Health, Dublin, Ireland

¹⁰ Amager-Hvidovre Hospital, Copenhagen University, Physical Medicine and Rehabilitation Research - Copenhagen (PMR-C), Department of Physical and Occupational Therapy, Clinical Research Centre, and Department of Orthopedic Surgery, Hvidovre, Denmark; Amager-Hvidovre Hospital, Copenhagen University, Department of Orthopedic Surgery, Sports Orthopedic Research Center - Copenhagen (SORC-C), Hvidovre, Denmark

Beitrag

Background

Lateral ankle sprains (LASs) are common in indoor sports and high shoe-surface friction is considered a risk factor for non-contact LASs. Spraino is a novel Teflon-patch that is attached to the outside of sports shoes to minimise friction at the lateral edge, which could mitigate the risk of LAS. We aimed to determine preliminary effectiveness (incidence rate and severity) and safety (harms) of Spraino when used to prevent LAS injury among indoor sport athletes.

Methods

In this exploratory, parallel-group, two-arm pilot RCT, 510 sub-elite indoor sport athletes with a previous LAS injury were randomly allocated (1:1) to Spraino or “do-as-usual”. Allocation was concealed and the trial was outcome-assessor-blinded. Match and training exposure, LASs and associated time-loss were captured weekly via text messages. Information on harms, fear-of-injury and ankle pain were also documented.

Results

480 participants completed the trial, reporting a total of 151 LASs, of which 96 were categorised as non-contact, and 50 as severe. All outcomes favoured Spraino with incidence rate ratios of 0,87 (95% CI: 0,62-1,23) for all LASs; 0,64 (95% CI: 0,42-0,98) for non-contact LASs; and 0,47 (95% CI: 0,25-0,88) for severe LASs. Time-loss per LAS was also lower in the Spraino group (1,8 vs 2,8 weeks, $p=0,014$). Six participants reported minor harms because of Spraino.

Conclusion

Compared to usual care, athletes allocated to Spraino had a reduced risk of LAS injury and reduced time-loss, with only few reports of minor harms. The next step is to test these promising risk reductions in a confirmatory RCT.