

Hoksrud A, Ohberg L, Alfredson H, Bahr R.

Ultrasound-guided sclerosis of neovessels in painful chronic patellar tendinopathy: a randomized controlled trial.

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Department of Sports Medicine, Oslo Sports Trauma Research Center, Norwegian School of Sport Sciences, PO Box 4014, Ullevaal Stadion, 0806 Oslo, Norway.

BACKGROUND: Color Doppler ultrasound examination frequently reveals neovascularization in chronic painful Achilles and patellar tendinopathy. Sclerosing the area with vascular ingrowth using polidocanol has shown promising clinical results in patients with Achilles tendinopathy. **PURPOSE:** To investigate sclerosing treatment using polidocanol on a group of elite athletes with patellar tendinopathy.

STUDY DESIGN: Randomized controlled trial/cross-over study; Level of evidence, 1.

METHODS: The authors recruited 33 patients (42 tendons), mainly from the Norwegian elite divisions in basketball, team handball, and volleyball.

Seventeen patients (23 knees) were randomized to the treatment group (polidocanol injections in the area of neovascularization) and 16 patients (20 knees) to the control group (similar injections with lidocaine/epinephrine).

After 4 months of treatment, the control group was crossed over to active treatment.

Pain and function were recorded using the Victorian Institute of Sport Assessment score before the start of treatment and 4, 8, and 12 months after the first injection.

Victorian Institute of Sport Assessment scores between groups were compared using multivariate analysis of variance for repeated measures. **RESULTS:** The treatment group reported a significant improvement in Victorian Institute of Sport Assessment

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score from 51 to 62 after 4 months; there was no change for the control group (group by time interaction, $P = .052$). After 8 months, when the control group had also received active treatment with polidocanol, they had a greater improvement in Victorian Institute of Sport Assessment score (58-79) than did the treatment group (54-70; group by time interaction, $P = .022$; time effect, $P < .0001$). There was no further time or group effect in Victorian Institute of Sport Assessment score to the 12-month follow-up (treatment, 72; control, 85).

CONCLUSION: Sclerosing injections with polidocanol resulted in a significant improvement in knee function and reduced pain in patients with patellar tendinopathy.