



Friday, 17 July | 12:45 - 13:30

Satellite Symposium
*Optimized Workflow
for Increasing Patient
Throughput*

Visit our booth 

ECR 2020 / C-02314

Ultrasound-Guided Hyperosmolar Dextrose Prolotherapy for Chronic Achilles Tendinopathy

Congress:

ECR 2020

Poster Number:

C-02314

Type:

Scientific Exhibit

Keywords:

Performed at one institution, Observational, Prospective, Inflammation, Puncture, Outcomes analysis, Ultrasound, Percutaneous, Musculoskeletal system, Interventional non-vascular, Musculoskeletal

Authors:

A. Bello Báez, Y. El Khatib Ghzal, M. L. Nieto Morales, A. Cavada Laza; Santa Cruz de Tenerife/ES

DOI:

10.26044/ecr2020/C-02314

DOI-Link:

<https://dx.doi.org/10.26044/ecr2020/C-02314>

Purpose

To determine the clinical effectiveness of ultrasound-guided hyperosmolar dextrose injections (prolotherapy) for chronic Achilles tendinopathy.

[Read more](#)

Methods and materials

This observational prospective study (case series) included patients from our institution (2014-2018) experiencing Achilles tendinopathy pain with unsatisfactory results after a three-month initial conservative treatment (conventional physical therapy and shockwave therapy). Exclusion criteria: insertional calcific tendinosis (irreversible tendinosis), infection-related tendinopathy, large intra-substance or tendon insertion ruptures. All patients were informed about the study and signed the standard consent form of our institution. The diagnostic and interventional ultrasound procedures were performed by three experienced radiologists with a professional background of 9–20 years in musculoskeletal radiology. The...

[Read more](#)

Results

A total of 22 patients with Achilles tendinopathy were treated (M/F: 13/9, age: 25-70 years) after unsuccessful conventional treatment from one or more of the following rehabilitation techniques: eccentric exercise (n=17), shock wave therapy (n=9), and intra-tissue percutaneous electrolysis (n=2). 91% of the patients had a mid-portion tendinosis with only 2 cases of insertional tendinosis. Repeating the percutaneous treatment every 5-6 weeks, a mean number of 5 treatment sessions (1–11) was required to achieve satisfactory results (VAS

[Read more](#)



Fig. 1: Material used for the percutaneous interventional ultrasound procedure.

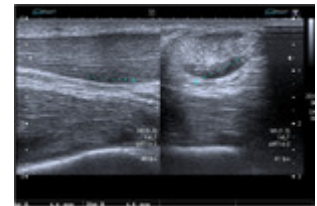


Fig. 2: Achilles tendon ultrasound locating the hypoechoic tendinous foci to be treated.

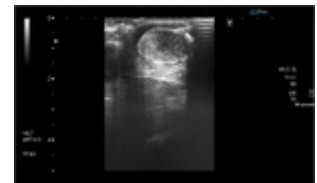


Fig. 3: Achilles tendon ultrasound-guided hydrodissection of the paratenon with 2%...

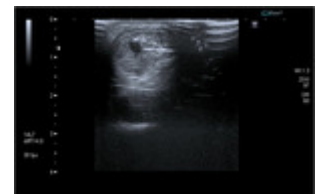


Fig. 4: Achilles tendon ultrasound-guided prolotherapy (hyperosmolar dextrose solution...

Conclusion

This study aimed to add evidence to the little data available on tendinosis and its possible treatment. Our work supports data obtained by Maxwell et al and Ryan et al (2, 3), which presents the largest series on the treatment and follow up of Achilles tendinosis published to date and provide an excellent reference to compare our results. Our ultrasound-guided, percutaneous treatment method describes for the first time paratenon hydrodissection with 2% lidocaine, fulfilling a dual purpose. On the one hand, the tendon is anaesthetised...

[Read more](#)

Personal information and conflict of interest

Y. El Khatib Ghzal; Santa Cruz de Tenerife/ES - nothing to disclose A. Bello Báez; Santa Cruz de Tenerife/ES - nothing to disclose L. Nieto Morales; Santa Cruz de Tenerife/ES - nothing to disclose A. Cavada Laza; SANTA CRUZ DE TENERIFE/ES - nothing to disclose

[Read more](#)

References

1.- Boonstra A, Schiphorst Preuper H, Reneman M, Posthumus J, Stewart R. Reliability and validity of the visual analogue scale for disability in patients with chronic musculoskeletal pain. Int J Rehabil Res 2008; 31:165-169 2.- Norman J. Maxwell, Michael B. Ryan, Sonographically Guided Intratendinous Injection of Hyperosmolar Dextrose to Treat Chronic Tendinosis of the Achilles Tendon: A Pilot Study. AJR 2007; 189:W215-W220 3.- Michael B. Ryan, Anthony Wong. Favorable Outcomes After Sonographically Guided Intratendinous Injection of Hyperosmolar Dextrose for Chronic Insertional and Midportion Achilles Tendinosis....

[Read more](#)

[Home](#) | [Browse posters](#) | [Help](#) | [Privacy policy](#) | [Disclaimer](#) | [Contact](#) | [myESR](#)

© 2003-2020 ESR - European Society of Radiology

ESRF EUROPEAN SOCIETY
OF RADIOLOGY