

First clinical experience with a revolutionary Ultrasound wireless probe

Emergency Ultrasound and Ultrasound examinations outside the Hospital and the medical office are a growing field of interest in modern medicine.

O.T.E medical, Milan, Italy supplies a revolutionary wireless probe which can be used either with an Ipad or with an Iphone.

Goal of this preliminary report was to evaluate the efficacy of the devices in clinical practice.

Patients and Material

From January 2016 the 4th till February 2016 the 28th we have performed 200 consecutive examinations on clinical patients with the O.T.E wireless probe and retrospectively we evaluated our results. Abdominal US were performed with a 5MHz curvilinear probe while musculo-skeletal and neck examinations were performed with a 7.5/10 MHz probe.

107 men and 93 women aged between 16 and 92 years (mean 47.3 Jears)

46 abdominal examinations performed with the curvilinear 5 MHz probe.

7 thoracic Ultrasound performed with both the curvilinear and the linear probe.

21 examinations of the Thyroid and the neck

54 shoulder examinations

21 knee examinations

9 examinations of the hip and the gluteal region

36 were examinations of muscles and tendons

43 Patients underwent an US guided interventional therapy for musculoskeletal pain.

All interventions could be successfully be performed with great confort for both, patient and medical doctor.

Results

3/46 abdominal examinations performed due to the obesity of the subjects were examined a second time with a « conventional » Ultrasound equipement (Esaote My lab 75, G.E. LOGIQ S8, Sonoscape S9) without any substantial change in the diagnosis.

For the examinations of the Thyroid gland all lesions were detected with the wireless O.T.E probe, but due to the lack of Color Doppler the value of the examination was that of a general screening.

In the examination of the musculo-skeletal system only the examinations of the superficial structures of the hand (specifically the pulleys) had to be shifted to the « high end » ultrasound equipments.

Conclusions :

O.T.E wireless Ultrasound probes proved to be an effective tool, particularly for emergency and ambulatorial examinations outside the medical office.

The probes proved to be very effective in interventions.

With the technical improvement (128 channels and high resolution linear probe) the results should significantly improve.

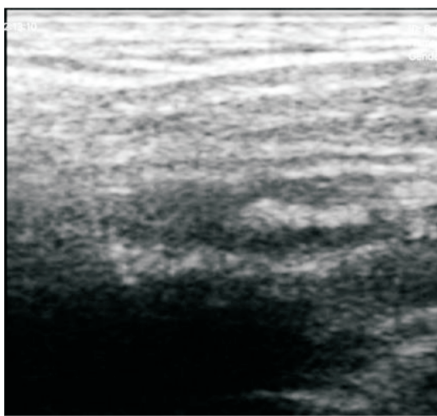


Fig. 1 Biceps tendon tear

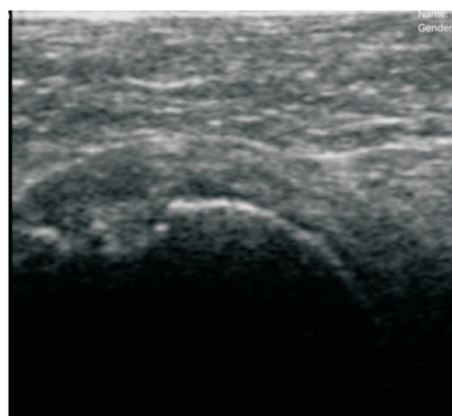


Fig 2 Supraspinatus tear

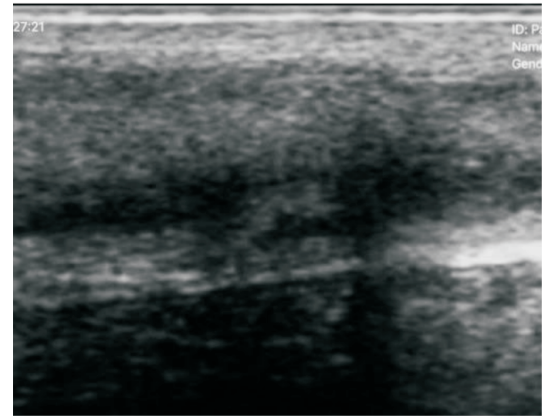


Fig 3 Achilles tendon tear

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