



Ultra-Pro II™ Needle Guide Allows Accurate Visualization of the Needle Tip During Infiltration of the Hip Joint

BACKGROUND

Professor Fernando Jimenez, MD, Ph.D
Faculty of Sports Sciences
University of Castilla and La Mancha
Toledo, Spain
Director of International
chair of MSK Ultrasound
University San Antonio
Murcia, Spain

Case:
Infiltration of the hip joint

Featured Product:
Ultra-Pro II Needle Guide

CONSIDERATION FOR USE

Ultrasound may provide a limited view of the hip joint, as it only allows identification of joint effusion, synovitis and some tears of the labrum. This imaging technique is often useful for interventional procedures when supported by the Ultra-Pro II needle guide.

REQUIRED EQUIPMENT FOR EXAMINATION

- GE Healthcare LOGIQ S8 ultrasound system
- GE Healthcare ML6-15 multi-frequency transducer
- CIVCO Ultra-Pro II Needle Guide
- Epidural needle, 18-22GA, 10cc syringe
- Mepivacaine and corticosteriod, hyaluronic acid, PRP

PATIENT AND PROBE POSITIONING

Place the patient in the supine position with the hip in a neutral position. The transducer can be positioned longitudinal to the femoral neck or longitudinal to the extremity and thus oblique with respect to the femoral head. (Figure 1) The ultrasound image should always show the acetabulum, the head, neck and lower capsular recess (Figure 2), checking the needle path which must follow an oblique trajectory from distal to proximal and from superficial to deep, until it reaches the articular recess. (Figure 3)



Figure 1 demonstrates positioning of the patient and transducer during infiltration. The arrow indicates the direction of the needle for infiltration of the hip joint.



Figure 2 shows a longitudinal section of the hip joint. The bone profile of the femoral head, acetabulum and joint capsule are observed below the sartorius and rectus femoris. The target area is the anterior capsular infiltration recess. (RA)

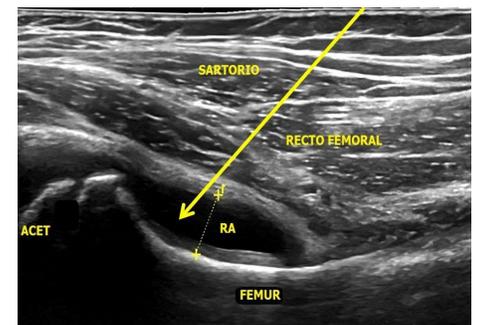


Figure 3 features long axis examination of the hip joint. The bony anatomical landmarks of the acetabulum (ACET) and femur are shown below the muscle planes. The arrow shows the needle path.





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APPROACH TO EXAMINATION

The bracket is attached to the transducer and then inserted into the cover making sure to use proper sterile technique. When the desired gauge of needle guide has been placed onto the attachment area of the bracket (on the outside of the cover), the needle is inserted into the needle guide channel to reach the lesion. (Figure 4)

In this example, the needle reaches the proximal neck area, directly in the hip distal recess, where the anti-inflammatory (Figure 5) may be administered. This method avoids puncturing the articular labrum, which is usually painful for the patient. From there the spread of the anesthetic then progresses in a proximal direction up the entire joint.

CASE DESCRIPTION

The Ultra-Pro II guide allows evacuation of inflammatory joint effusions of a mechanical nature. Additionally, infiltration of hyaluronic acid, corticosteroids or PRP in osteoarticular degenerative disease (OA) may be accomplished with the use of the needle guide.

CONCLUSIONS

The Ultra-Pro II guide allows accurate visualization of the tip of the needle, allowing the vessels and the femoral nerve to remain in a medial situation. Likewise, the circumflex vessels cross over the ultrasound plane and with use of the guide, it is easy to direct the needle away from delicate anatomy.

For small effusions, the needle guide allows placing the tip just inside the anterior joint recess. Especially useful in obese patients, the needle guide facilitates placement of the needle tip within the joint space.



Figure 4 demonstrates attachment of the reusable bracket to the transducer. The image shows position of the transducer and bracket during hyaluronic acid infiltration of the anterior joint recess of the hip.

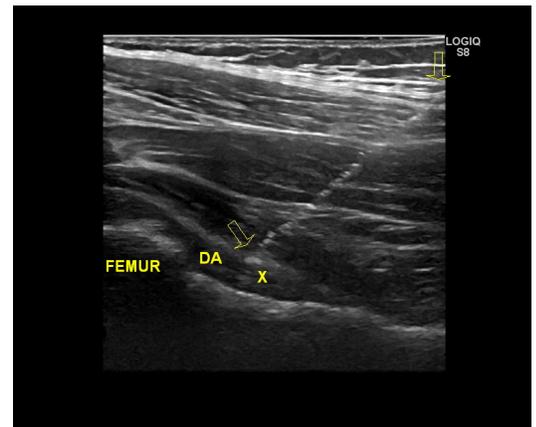


Figure 5 demonstrates infiltration of the hip joint at the anterior capsular recess. (DA) The needle (arrows) traverses the muscle planes and its tip reaches the joint space, while its contents are displayed with a hyperechoic signal within the articular recess (X).