

Avoiding iatrogenic injury during portal placement in hip arthroscopy

KH Sunil Kumar, L Lisenda, V Khanduja

Cambridge University Hospitals NHS Foundation Trust, UK

CORRESPONDENCE TO

Karadi Sunil Kumar, E: drkhsunil@yahoo.com

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BACKGROUND

Hip arthroscopy has gained immense popularity in the treatment of many intra and extra-articular pathologies in and around the hip joint. The anterolateral portal is the most common portal used to establish access at arthroscopy and being the first, it has to be placed blindly under image intensifier guidance. The subsequent portals are placed under direct arthroscopic visualisation.

Iatrogenic acetabular labral injury (IALI) has been reported to occur during the first portal placement and its incidence varies from 0.67% to 20%.¹⁻³ We present an easy technique to prevent IALI.

TECHNIQUE

Following skin preparation and draping, traction is applied to the leg until the suction effect is seen on the image intensifier. A 17G needle is then introduced to equalise the pressure in the hip with the atmospheric pressure. Following this, the joint is easily distracted and 40ml of normal saline is injected to further distend the joint. At this stage, the silhouette of the acetabular labrum is clearly visualised, which serves as a guide to needle and furthermore portal placement (Figs 1 and 2). The needle is now reinserted to avoid piercing the labrum and causing IALI. An incorrect needle trajectory (Fig 3), however, can pierce the labrum.

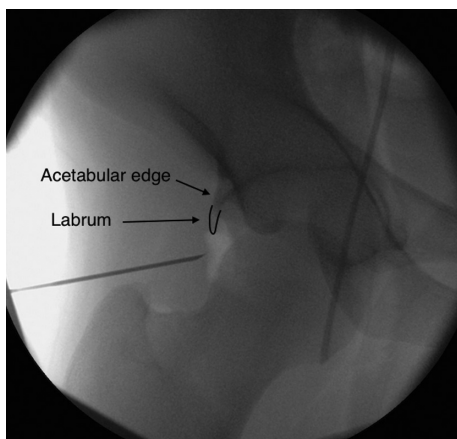


Figure 1 The labral silhouette pushed away owing to fluid distending the joint

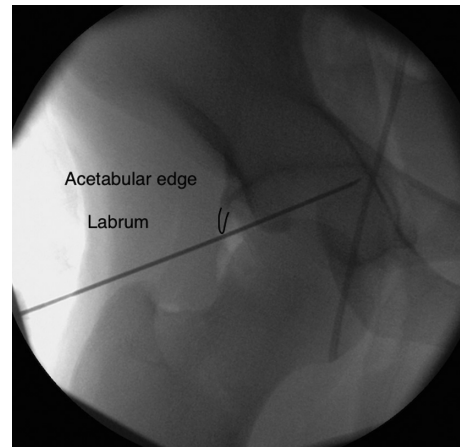


Figure 2 Correct position of the needle allowing access to the hip joint

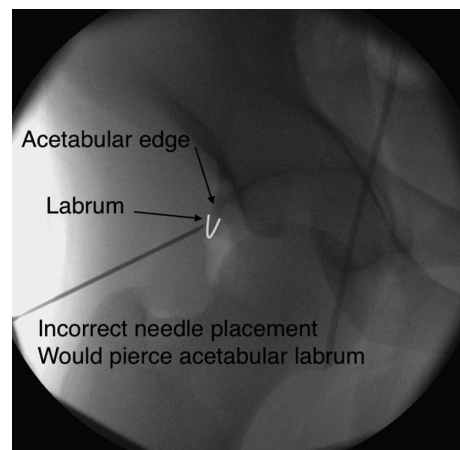


Figure 3 Incorrect needle trajectory heading towards labrum

DISCUSSION

Our technique is a minor modification of the original technique described by Byrd⁴ in that distending the joint with 40ml of fluid prior to insertion of the needle pushes the labrum further away. This creates enough space for the needle and then the scope to be inserted safely, thereby avoiding IALI.

References

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