



Technical Tip: The Modified SPAIRE (Spare Piriformis and Internus, Repair Externus) Approach for Hip Arthroplasty Surgery



Veenesh Selvaratnam^{1*}, Izyan Irdina² and Shalina Gunainthran²

¹National Orthopaedic Centre of Excellence for Research and Learning (NOCERAL), Department of Orthopaedic Surgery, Faculty of Medicine, University of Malaya, Malaysia

²Ministry of Health, Malaysia

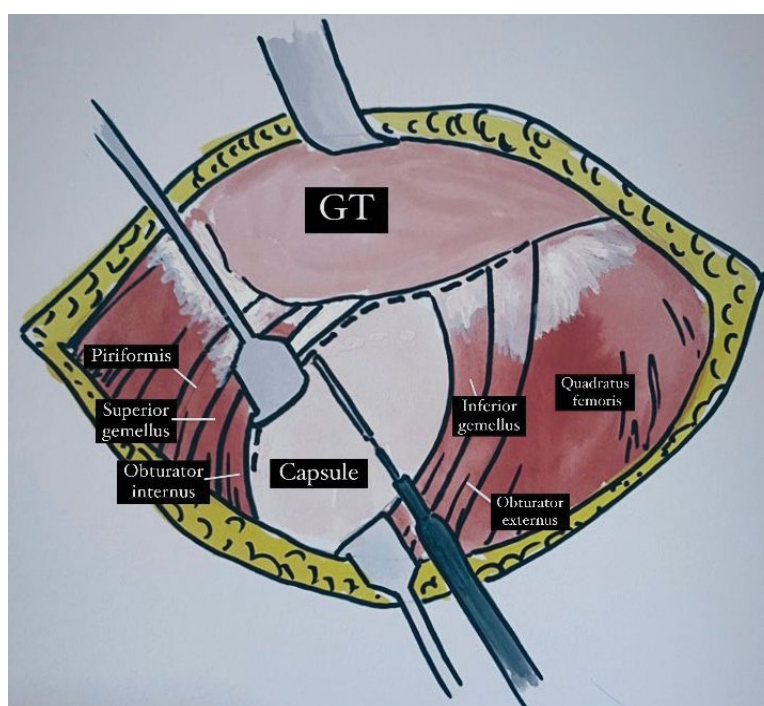


Figure 1: This image shows a Langenbeck Retractor retracting and protecting the Obturator Internus, Superior Gemellus and Piriformis. It also shows the line of incision along the capsule, Inferior Gemellus and Obturator Externus using a Diathermy to expose the hip joint in this Modified SPAIRE approach.

In 2016, the Exeter Hip Unit, United Kingdom popularized the SPAIRE (Spare Piriformis and Internus, Repair Externus) approach for hip arthroplasty procedures [1]. This is a tendon sparing posterior approach to the hip which only involves division of the obturator externus tendon and part of the quadratus femoris muscle from their femoral insertions. The tendon insertions of piriformis, superior gemellus, obturator internus and inferior gemellus are spared [1].

The inferior gemellus is a muscular structure rather than tendinous unlike the obturator internus. It therefore almost always tears due to retraction to expose the hip joint when

***Corresponding author:** Veenesh Selvaratnam, National Orthopaedic Centre of Excellence for Research and Learning (NOCERAL), Department of Orthopaedic Surgery, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia

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performing the SPAIRE approach. Therefore, we propose a Modified SPAIRE technique. In the modified SPAIRE technique the inferior gemellus is divided together with the obturator externus and part of the quadratus femoris at the femoral insertion when performing this approach (Figure 1). By dividing the inferior gemellus, it provides a better exposure and also preserves the inferior gemellus from getting damaged due to retraction. At the end of the procedure, inferior gemellus along with obturator externus and posterior capsule can be

repaired with strong non-absorbable sutures through an enhanced trans-osseous technique onto the posterior aspect of the greater trochanter.

References

1. Hanly RJ, Sokolowski S, Timperley AJ (2017) The spaire technique allows sparing of the piriformis and obturator internus in a modified posterior approach to the hip. *Hip Int* 27: 205-209.

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