

achieved parity however with the supine group in all parameters by 9 episodes. During the first three episodes, the junior trainees performed significantly worse for the first diagnostic round ($p=0.005$), but not the second diagnostic round ($p=0.200$). They then rapidly achieved parity with the senior trainees and performed at a similar level by the end of the study period.

Conclusions: Trainees with minimal experience of hip arthroscopy progressively learn and objectively improve their performance on a hip simulator. Orientation after portal exchange is difficult for all but particularly those learning in the lateral position. Trainees are likely to benefit from simulator training in order to learn orientation and basic competence prior to performing hip arthroscopy on patients.

Paper 27; The Diagnostic Accuracy of Clinical Tests in Identifying Those with Deep Gluteal Nerve Entrapment *ROBROY MARTIN, PHD, PT, USA, PRESENTING*

AUTHOR

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SUMMARY

For those with recalcitrant hip pain and symptoms consistent with DGS the Active Piriformis Test and Seated Piriformis Stretch can be used to help identify those with and without DGS.

DATA

Purpose/Hypothesis: Entrapment of the sciatic nerve has been termed deep gluteal nerve syndrome (DGS) and treated arthroscopically. The objective of this study was to determine the diagnostic accuracy of the Lasague's Sign-Straight Leg Raise (SLR), Pace Sign-Active Piriformis Test, and Freiberg Sign-Seated Piriformis Stretch in those undergoing hip arthroscopy for suspected DGS.

Methods: 33 subjects (25 females, 8 male) were included in the study. Subjects had mean age of 43 years (range 15-64; SD 11 years) and mean symptom duration of 36 months (range 2-192; SD 41 months). Clinical records were retrospectively reviewed to identify those who underwent hip arthroscopy for recalcitrant hip pain and had symptoms suggestive of DGS. These symptoms included buttock pain, parasesthesia, pain distal to the knee, and/or inability to sit greater than 30 minutes. All subjects underwent a consistent clinical examination that included the SLR, Active Piriformis Test, and Seated Piriformis Stretch. All subjects also underwent hip ar-

throscopy to evaluate and treat any identified intra- and/or extra-articular pathologies. This surgical evaluation included visualization of the sciatic nerve and examination for entrapment.

Results: All subjects complained of hip pain with 27 (82%) having an arthroscopically identified labral tear. Symptoms of buttock pain, inability to sit greater than 30 minutes, parasesthesia, and/or pain distal to the knee, were noted in 81% (N=27), 76% (N=25), 57% (N=19), and 30% (N=10), respectively. Using surgical findings as the gold standard for DGS, 23 out of the 33 were diagnosed and treated for entrapment of the sciatic nerve. The sensitivity, specificity, positive likelihood ratio, negative likelihood ratio, and diagnostic odds ratio for the SLR were 0.15, 0.95, 3.2, 0.9, and 3.59, respectively. For Active Piriformis Test, the sensitivity, specificity, positive likelihood ratio, negative likelihood ratio, and diagnostic odds ratio were for were 0.78, 0.80, 3.9, 0.27, and 14.4, respectively. For the Seated Piriformis Stretch, the sensitivity, specificity, positive likelihood ratio, negative likelihood ratio, and diagnostic odds ratio were for were 0.52, 0.90, 5.22, 0.53, and 9.82, respectively. The most accurate results were obtained when the results of the Active Piriformis Test and Seated Piriformis Stretch were combined with sensitivity, specificity, positive likelihood ratio, negative likelihood ratio, and diagnostic odds ratio of 0.91, 0.80, 4.57, 0.11, and 42, respectively.

Conclusion: The SLR is not useful while the Active Piriformis Test and Seated Piriformis Stretch are valuable tests in identifying those with arthroscopically confirmed DGS.

Clinical Relevance: For those with recalcitrant hip pain and symptoms suggesting DGS the results of the Active Piriformis Test and Seated Piriformis Stretch can be used together to help identify those with and without the disorder.

Paper 28: Arthroscopic Treatment of Recalcitrant Greater Trochanteric Bursitis with Minimum Two-Year Followup *CONNOR LAROSE, MD, USA, PRESENTING*

AUTHOR

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SUMMARY

Two year clinical followup of patients who underwent arthroscopic bursectomy for recalcitrant greater trochanteric bursitis.

DATA

Background: The arthroscopic treatment of bursitis in the peritrochanteric space is a relatively new surgical

technique with few published reports of outcomes following surgical treatment. The purpose of this study is to present the surgical outcomes 2 years after arthroscopic bursectomy for recalcitrant greater trochanteric bursitis.

Materials and Methods: The study is designed as a retrospective review of 38 patients who had previously undergone arthroscopic bursectomy with greater than 24 months of follow up (range, 24-83 months), after having failed a series of three injections, physical therapy and activity modification. Patients' preoperative VAS and postoperative VAS scores were obtained for comparison. In addition, patients also filled out a hip outcome score (HOS) for evaluation of ADLs and sports activities.

Results: A statistical improvement was noted on VAS scores (8.4 to 2.6), and these were sustained for greater than two years. In addition, the HOS ADL subscale average score of greater than 70% demonstrated good overall functional outcomes. However, 21% of the patients required a secondary surgical procedure for either intraarticular pathology, refractory bursitis or an abductor muscle tear.

Conclusion: Arthroscopic bursectomy can predictably improve pain scores in patients with recalcitrant bursitis. The treatment of any other existing hip pathology should also be considered at the time of surgery in order to improve outcomes.

Paper 29: The Outcome of Arthroscopic Ilio-Tibial Band Release in the Treatment of Lateral Hip Pain after Total Hip Replacement. JOHN M. O'DONNELL, MBBS, FRACS, FAORTHA, AUSTRALIA, PRESENTING AUTHOR ANDREW CHIA, MBBS, FRACS, AUSTRALIA PARMINDER J. SINGH, MBBS, MRCS, FRCS(Tr AND ORTH), MS, AUSTRALIA · Monash University Melbourne, Victoria, Australia

SUMMARY

We report the treatment and outcome for 9 patients who developed recalcitrant Greater Trochanteric Pain Syndrome after THA and who did not have any gluteal tendon tear.

DATA

Introduction: Lateral trochanteric pain following total hip arthroplasty has been reported to range between 4-17%. The incidence may vary depending on the approach used and also may be associated with increased lateral offset caused by the arthroplasty. Most patients respond to non-operative measures and cortico-steroid injections, however the treatment of refractory cases has been treated in the past with open bursectomy. Although arthroscopic bursectomy has been shown to be a safe and effective treatment alternative for trochanteric bursitis

(also now known as Greater Trochanteric Pain Syndrome, or GTPS), use of this technique has not been reported in patients following total hip arthroplasty (THA).

Methods: The study group consisted of 9 patients with GTPS following THA performed through a direct anterior (Hueter) approach, and who had symptoms for greater than 6 months, and had failed conservative treatment. The initial THA had been performed between 2007 and 2010 and in this time a total of 373 THAs had been performed. Follow up was for a minimum of 12 months.

Prior to surgery an Ultrasound examination was performed to exclude gluteal tendon tears.

Arthroscopy was performed in the lateral position, without traction.

The Ilio-Tibial Band (ITB) was split longitudinally and this split then enlarged to an oval shape. Scarred soft tissue overlying the greater trochanter ("bursa") was excised. The Gluteal tendon attachments were inspected and checked for tears. There were no patients in this group identified as having a tendon tear.

Modified Harris Hip Scores (MHHS) and Non-Arthritic Hip Scores were performed pre-operatively, at 2 weeks, 6 weeks, 6 months and 1 year, and then annually.

Results: MHHS improved from 56.1 to 75.1 and NAHS from 60.5 to 78.1 by one year, and there was continuing improvement in the 3 patients who had been reviewed at 2 years. There were no complications.

Conclusion: Arthroscopic ITB decompression with trochanteric bursectomy is safe and effective in the treatment of refractory GTPS following total hip arthroplasty, and in the absence of gluteal tendon tears.

Paper 30: Clinical Results of Arthroscopic Treatment of Acetabular Labral Tears Using Three Methods

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SUMMARY

Labral base refixation, simple loop refixation, and selective partial debridement were used for labral preservation in 239 labral tears treated arthroscopically. All three techniques yielded favorable short-term results. Tear type and clinical context should dictate the appropriate choice of labral treatment.

DATA

Introduction: Multiple biomechanics studies have suggested advantages of labral preservation in hip surgery,