

ically. The study also suggests that outcome is influenced by the extent of articular changes and ongoing synovial activity of the disease.

Paper 42: Hip-Specific Functional Testing in Healthy Volunteers and in Pre- and Post-Operative Hip Patients Undergoing Hip Arthroscopy for Femoroacetabular Impingement *PATRICK MORGAN, MD, USA, PRESENTING AUTHOR* · University of Minnesota Minneapolis, Minnesota, USA

SUMMARY

We compared the functional testing data between 40 normal volunteers and 62 patients tested at preoperative and 3 and 6 month post-operative time points and found significant improvement in all tests and normalization in three of the six tests administered.

DATA

Return to high-level activity after hip arthroscopy has been documented in high-level athletes (1). In the community population, however, there is little evidence to guide the physician deciding when the average patient might be prepared to return to sport. We hypothesize that patients with femoroacetabular impingement (FAI) would perform poorly compared to individuals without hip pathology. We further hypothesized that patients treated with hip arthroscopy would, after appropriate rehabilitation, improve from their pre-operative performance and approach or reach a the performance of healthy volunteers.

Methods: Forty normal volunteers were screened for hip pathology through history, physical examination, and administration of the HOOS outcome score (2). Each normal volunteer then performed the following tests: single leg hop, single leg timed hop, crossover triple hop, modified stand and reach, retro step-up, and a modified shuttle run. Sixty-two patients undergoing hip arthroscopy for FAI correction and labral repair versus debridement were then tested pre-operatively and again at 3 and 6 months.

Results: All six tests showed statistically significant poorer performance in pre-operative patients when compared to normal subjects ($p < 0.05$). Patient performance improved significantly for all six tests during the first six post-operative months. Three tests—the modified stand and reach, timed single-leg hop, modified shuttle run,—showed improvement so as to be indistinguishable from the normal population ($p = 0.387, 0.333, \text{ and } 0.226$). The entire battery of tests required 20-30 minutes to administer.

Discussion: Return to sport and fitness activities is a major concern of patients undergoing a surgical proce-

dure (3). Better post-operative functional testing has been associated with increased likelihood of returning to higher-level activities (4). As post-operative rehabilitation protocols for arthroscopic hip procedures are refined, it is our hope that these tests may be used as metrics to evaluate our ability to prepare patients for return to sport.

DISCUSSION

References: 1. Philippon M, Schenker M, Briggs K, Kuppersmith D. Femoroacetabular impingement in 45 professional athletes: associated pathologies and return to sport following arthroscopic decompression. *Knee Surg Sports Traumatol Arthrosc* 2007; 15(7): 908-914.

2. Nildotter A, Lohmander L, Klassbo M, Roos E. Hip disability and osteoarthritis outcome score (HOOS) – validity and responsiveness in total hip replacement. *BMC Musculoskelet Disord* 2003; 4: 10.

3. Thorstensson C, Lohmander L, Frobell R, Roos E, Goberman-Hill. Choosing surgery: patients' preferences within a trial of treatments for anterior cruciate ligament injury. A qualitative study. *BMC Musculoskelet Disord* 2009; 10:100.

4. Arden C, Webster K, Taylor N, Feller J. Return to Preinjury Level of Competitive Sport After Anterior Cruciate Ligament Reconstructive Surgery: Two-thirds of Patients Have Not Returned by 12 Months After Surgery. *Am J Sports Med* 2011 (39) 538-543.

Paper 43: Lumbar Plexus Block for Pain Control after Hip Arthroscopy. A Randomized Controlled Trial *ANIL RANAWAT, MD, USA, PRESENTING AUTHOR*

BRYAN KELLY, MD, USA

STRUAN COLEMAN, M.D., PH.D., USA

MATTHEW RADE, B.A., USA

TIFFANY TEFORÉ, MD,

JACQUES YADEAU, MD, PHD · Hospital for Special Surgery New York, NY, USA

SUMMARY

Lumbar plexus block (LPB) combined with a multimodal analgesic regimen reduced pain on the day of hip arthroscopy surgery and can be considered for reduction of short-term pain.

DATA

Introduction: The indications for hip arthroscopy are rapidly increasing to include both intra- and extra-articular disorders such as femoro-acetabular impingement, synovial disorders, abductor pathology, etc. These large, complex cases are associated with moderate to severe postoperative pain, and treatment with opioids can result

in nausea, vomiting and delayed discharge. Lumbar plexus blockade (LPB) has a low complication rate and is superior to opioids for pain control after total hip replacement. However, a dearth of literature exists on using LPB for hip arthroscopy. This study investigated whether the addition of LPB to neuraxial anesthesia reduced postoperative pain.

Methods: Following IRB approval, 82 patients undergoing ambulatory hip arthroscopy were enrolled in this randomized controlled trial. All patients received intravenous sedation, combined spinal-epidural and postoperative hydrocodone/acetaminophen and oral NSAIDs. Study patients additionally received LPB using 30 mL 0.25% bupivacaine (with 5 mcg/ml epinephrine) following quadriceps stimulation. A blinded investigator interviewed patients at 0.5, 1, 2, 3 and 4 hours postoperatively, and via telephone the following day.

Results: Demographics were uniform between groups. Using the General Estimating Equations method, the LPB was shown to reduce pain at rest in the PACU (mean NRS 3.3 ± 2.2 for LPB versus 4.2 ± 1.8 for CSE-only patients). Non-significant trends in analgesic usage (21mg oral morphine equivalents vs. 29mg), pain with movement (NRS of 4.0 vs. 5.0), and patient satisfaction (8.6/10 vs. 7.9/10) also favored the intervention. There were no associated neurovascular complications from the LPB but there were two falls in the LPB group, without injury.

Discussion and Conclusion: LPB combined with a multimodal analgesic regimen reduced pain on the day of hip arthroscopy surgery and can be considered for reduction of short-term pain. The absence of significant improvement in secondary outcomes suggests that risk-benefit assessment of LPB for hip arthroscopy patients should be individualized.

Paper 44: Femoral Nerve Blocks are Effective for Post-Operative Pain Control after Hip Arthroscopy

THOMAS YOUM, MD, USA, PRESENTING AUTHOR

JAMES WARD, MD, USA

DAVID ALBERT, MD, USA

ROBERT ALTMAN, MD, USA

ANDREW ROSENBERG, MD, USA

GERMAINE CUFF, RN, USA

RACHEL GOLDSTEIN, MD, MPH, USA · NYU Hospital for Joint Diseases

New York, New York, USA

SUMMARY

By all criteria studied (quality of pain relief, length of stay in the PACU, side effects and patient satisfaction), a

femoral nerve block is an excellent alternative to routine narcotic pain medication in patients undergoing hip arthroscopy.

DATA

Purpose: To evaluate the utility of femoral nerve blocks in post-operative pain control after hip arthroscopy.

Methods: Forty consecutive patients scheduled for hip arthroscopy were randomized into two groups for post-operative pain control. Half were to receive routine intravenous narcotics for pain scores of seven or above in the PACU, the other half were to receive a femoral nerve block in the PACU for the same pain scores. Data was compared with respect to patient sex, age, nausea, overall satisfaction with analgesia, and duration of time in the PACU.

Results: Thirty-six patients had initial pain scores of seven or greater. Sixteen were randomized to receive post-operative morphine, and twenty to receive a femoral nerve block. There were no significant differences between the two groups with respect to sex or age of the patients. Patients who received morphine had a significantly longer time to discharge from the PACU (216 mins) than the femoral nerve block group (177 mins). The morphine group was also significantly more likely to report post-operative nausea (75%) than the femoral nerve block group (10%). Patients receiving femoral nerve blocks were significantly more likely to be satisfied with their post-operative pain control (90%) than those who had received morphine (25%). All of the patients receiving femoral nerve block stated that they would have the block again if they needed another hip arthroscopy.

Paper 45: Effects of Platelet-Rich Plasma (PRP) on the Management of Early Postoperative Pain and Inflammation Following Hip Arthroscopy in Patients with Femoroacetabular Impingement: A Prospective, Double Blinded, Randomized, Placebo Controlled, Clinical Trial

RODRIGO MARDONES, MD, CHILE, PRESENTING AUTHOR

CATALINA LARRAIN, MD, CHILE

MARCO ANTONIO GUERRERO, MD, CHILE

GIAN PAOLO VOLPATO, MD, CHILE

ALEXANDER TOMIC, MD, CHILE

MATIAS SALINEROS, MD, CHILE · Clinica Las Condes Santiago, RM, Chile

SUMMARY

A prospective, randomized and double blinded placebo controlled clinical trial was conducted to evaluate early postoperative pain management and inflammation in pa-