Hip Arthroscopy: Now and The Future

Paul Watson, MD
Associate professor Creighton University school of Medicine
CHI Health physicians Orthopedics
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Disclosures

• No financial relationship with any implant company or anything regarding this talk

You know you’re in trouble when
they call you by your full name
About Myself

• Harvard University for undergraduate
• McGill Medical school, MD,CM
• 5-year Orthopedic Residency at The University of Iowa Hospitals finished in 1999
• 1st Hip Arthroscopy in 2005
• Now do about 100 a year, hip scopes and revision scopes.

What we will cover

• What we do
• Who should get surgery
• Latest developments
• Sample cases

“Which celebrities should I follow to get the best medical advice?”
Hip Arthroscopy
What we do

• We look into the joint with a camera and fix injured part
Hip Arthroscopy- The challenge

• Diagnosis is difficult- back vs hip vs groin
• 40% incidence in asymptomatic patients 20-40 years
• Recent activity related pain
• Pain reproducible on exam
• Good response to diagnostic injection

The challenge- diagnosis

• 2012 study- Average patient saw 3 doctors, spends $19,000 and waits 2-3 years before getting a diagnosis
• 40% have had 1-2 procedures prior to their 1st orthopedic visit (back, Gyn, Appy)
• Most have normal x-rays! (or at least read as normal by the radiologist)
• Awareness is gradually improving
Hip Arthroscopy - The challenge

- Surgery is difficult - Hip is very deep -3-10 inches
- Joint Capsule is thick limits motion in joint
- Need to use 70 degree scope rarely used otherwise
Hip Arthroscopy

- Set up
Hip Arthroscopy

- Use x-ray to place needle in joint
- Injection of 40 ml of saline
- Reposition needle just above head
- Place guidewire
- Place first cannula

Hip Arthroscopy

- Portals
  - Addressing pathology
  - Switching portal
  - Using improved tools
Who should get it

• The ideal patient is a young, normal weight, healthy patient without arthritis and symptoms for less than 6 months.

Who should get it- Young Patients

• Under 30- 95 % Excellent results at 2 years
• Many patients with open growth plates
• Over 50? Over 50 25% get THA within 5 years
Who should get it - Weight

- 40% of adults in the US are obese
- BMI under 30 had 95% G/E results
- Over 35 BMI, 30% had a THA within 5 years
- Obese have 5 times the risks

Who should get it - No arthritis

- Need no arthritis- 88% get THA by 10 years
- Recovery faster for a THA!
Who should get it- **Time**

- Within 6 months of symptoms- did better
- Young patients with groin pain for more than 6 weeks should come see me!

Hip Labral Tears and Impingement
The Labrum

- Functions
  - Deepens acetabulum
  - Negative pressure in joint
  - Keeps fluid in hip joint
  - Proprioception

- Absence of labrum increases joint contact pressure

Ferguson et al: J Biomech, 2003
Kelly et al: AJSM 2003

Acetabular Labral Tear

- Always have groin/ front of hip pain
- Deep, sharp hip pain with catching or popping or clicking in groin
- Movement of the hip causes the pain!
FEMORAL ACETABULAR IMPINGEMENT

• Bone spurs cause pinching in the hip
• This leads to labral tear

Treatment

• Hip labral tears and impingement never have to have surgery
• No evidence at this time that treatment prevents arthritis
• Only treat if it hurts
Treatment Physical Therapy

- Very important to correct muscular and other sources of pain
- Ideally done before surgery to help with recovery
- Some patients too painful

Treatment

- Non-op (PMR July 2012)
  - NSAIDs, RICE
  - PT only 25% improve after 3 months about 50% better
  - Local anesthetic/ cortisone injection improved another 15%
    - Diagnostic and Therapeutic
Hip Arthroscopy

- Labral Tear repair
- Labral debridement

Treatment

- Surgery 90+% improvement
- Repair vs resection vs reconstruction
- Removing bone spurs/loose pieces
Acetabular Labral Tear Case

• 16 yo female with 4 yrs of pain and popping
• “Growing pains”
• Started with swimming breaststroke
• Pain with impingement
• MRI showed labral tear and CAM lesion
• Failed multiple PT, NSAID
• Treatment is Hip arthroscopy

Hip Labral Tear Repair
Impingement Case

- 28 year old male runner
- 5 years of popping and pain in hip
- Had severe pain with “normal MRI”
- Felt a stabbing pain, “like with a knife to the hip”

Exam showed positive impingement signs, resisted SLR and FADIR/FABER testing which reproduced pain.
Impingement Case

Hip Arthroscopy Rehab

- Rehab is surgery specific
- Longer crutch use for bony work
- 4 weeks for femoroplasty and 6 weeks for Microfracture
- Nashvillehip.org has all the rehab protocols that I use for each surgery
Labral repair with femoroplasty
Phase 1: 0 to 6 weeks

- Limit pain as much as possible
- 25lb WB with crutches for 3 weeks then progress to full WB by 6 weeks
- Limit ER and flexion for labral tear for 4 weeks
- Limit extension

Hip Arthroscopy Rehab
Phase 1: 0 to 6 weeks

- Immediate active assist ROM
- Avoid forced end range of motion
- Stationary bicycle
- Isometrics but avoid iliopsoas activation
Hip Arthroscopy Rehab
Phase 2: 6-12 weeks
• Off crutches, normalize gait
• Increase motion, active
• Gradual strengthening
• Start balance, hip musculature
• No jumping, running

Hip Arthroscopy Rehab
Phase 3: 12+ weeks
• Full strength, no pain
• Single leg balance and strengthening
• Impact activities eg. running
• Progress to Sports specific activities 4-6 months.
The Future?

• Hip arthroscopy has changed rapidly over the past 15 years
• Used to resect labrums now always repair or reconstruct
• Used to leave joint capsule open, now always repair

The cutting edge

• Also there are a lot of new things being fixed
• Trochanteric Bursitis
• Gluteus medius repair
• Piriformis Sciatic nerve decompression
• Hamstring repair
• Instability
• Symphsis pubis resection
• Ischiofemoral impingement
Trochanteric Pain Syndrome

- Tender over the outside of the hip
- If weak then Torn Gluteus medius

Trochanteric Pain Syndrome

- Can remove bursa, repair gluteus medius and lengthen IT band
Snapping Hip

• Pain, snap at greater trochanter, visible IT band
• Often described as dislocating their hip
• Audible snap is the iliopsoas tendon
• release the IT band or iliopsoas tendon

Piriformis syndrome

• Pain in Buttocks with sitting stairs squats or piriformis stretch
• Stretching and strengthening
• Cortisone
• Scope release
Piriformis syndrome

Hamstring Tear Repair

- Pain right where you sit in butt
- Often big bruise down the leg
Hamstring Tear Repair

Instability Repair

- Hip can be unstable with mild dysplasia or hypermobility which cause pain and labral tears
- Can tighten ligaments with scope
Symphysis Pubis

• Arthritis or inflammation at the front of the pelvis with pain
• Remove painful joint

Ischiofemoral Impingement

• Buttock pain with thigh bone banging into pelvis
• Remove bone to fix

Summary

• Hip Scope is a minimally invasive surgery
• rapidly evolving field of orthopedics
Thank you!

Any Questions?