ASHA 2023

The 4th annual congress of Asia Society of Hip Arthroscopy

第四屆亞洲髖關節鏡醫學會年會

SEP|09|SAT

Linkou,Taiwan

Contents

Welcome message

Dear all the members of Asia Society for Hip Arthroscopy and all the honorable invited speakers:

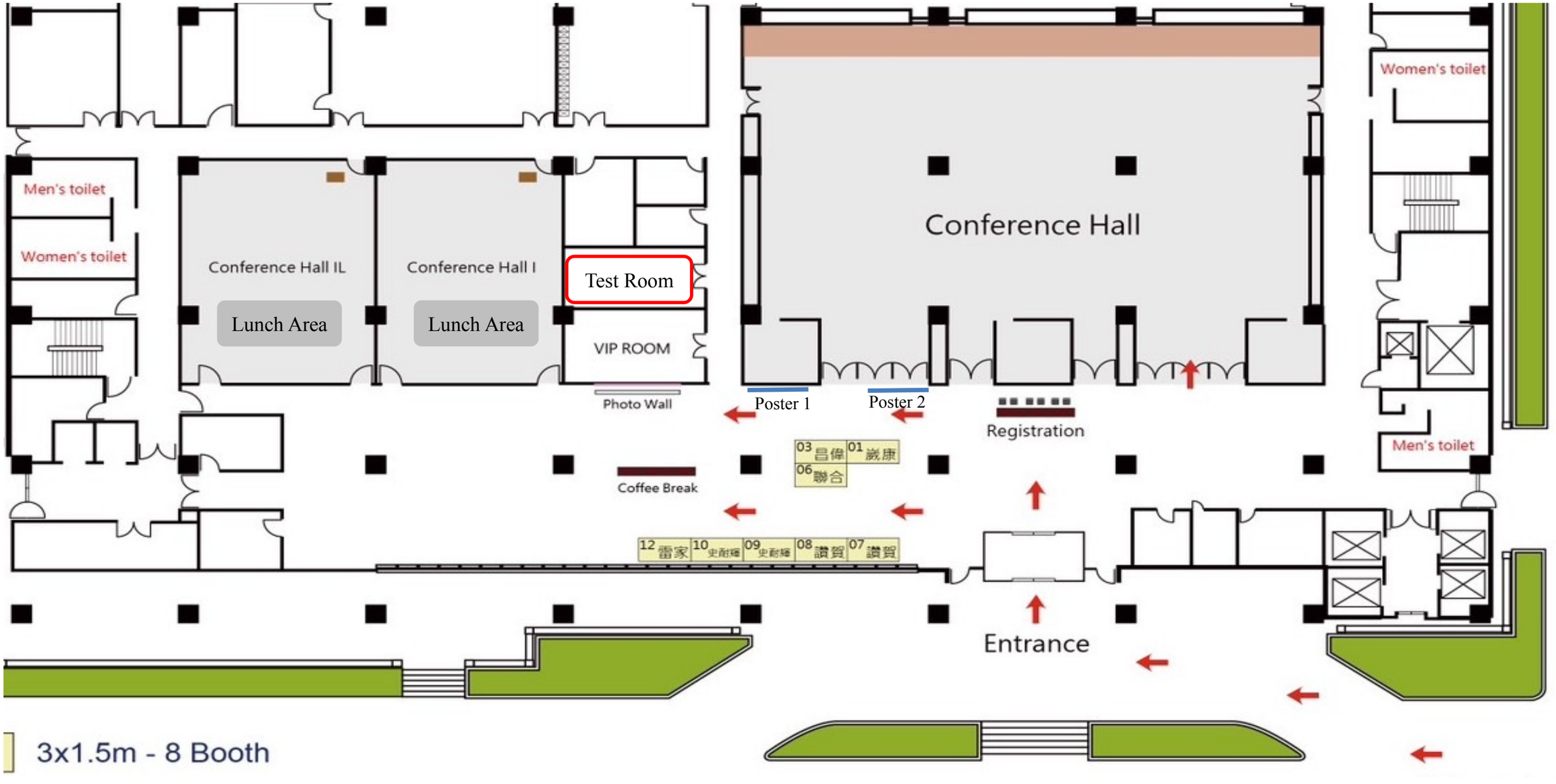
On behalf of Asia Society for Hip Arthroscopy (ASHA) and Taiwan Orthopedics Association (TOA), it is my great honor to extend a heartfelt welcome to all the distinguished medical professionals who have travelled to be with us here today. The 2023 Annual Meeting of Asia Society for Hip Arthroscopy (ASHA) is be held in Linkou, Taiwan today. Orthopedics has seen recent advances in fields of precision medicine, minimally invasive surgery, and regenerative medicine to name a few. The ASHA annual meeting plans to offer active and stimulating scientific programs which will serve as an excellent forum for Asian prosperous hip arthroscopic surgeons to present original clinical and basic science research and provide an opportunity to have a discussion on the advances in hip arthroscopic surgery and related research with other participants and our esteemed faculty. I really appreciated that organizing chairman Professor Hao-Che Tang and meeting staff make great efforts to design the conference to be rewarding and meaningful event. We hope you will have a beneficial and memorable experience during the meeting! Thanks again for all of your participation and wonderful lectures to us and make the congress so shining and brilliant.

This 2023 ASHA annual meeting is also combined the unique hip arthroscopic cadaveric training course in the Surgical Training Academy and Research Center, Chang Gung Memorial Hospital, Linkou, Taiwan. I do believe both academic and surgical training courses will provide the awesome and fruitful knowledge for our members and participants. Most important of all, you cannot miss the chance to experience and explore the beauty of Taiwan as well as the culture, tantalizing food and heartwarming hospitality of the island. At final I wish health, happiness and prosperity to everyone in 2023. Thank you!

Yi-Sheng Chan

Professor Yi-Sheng Chan M.D.
2022-2023 President of Asia Society for Hip Arthroscopy
President of Taiwan Orthopaedic Association
September 9, 2023

Venue information



Program Saturday, September 9, 2023

Speech & Free Paper Sessions
1F, Research Building, Chang Gung Memorial Hospital, Linkou, Taiwan

07:30-08:20	Registration	
08:25-08:30	Opening Remarks	
Femoroacetabular impingement syndrome, Moderator: Kuo-Chung Cheng		**Speaker**
08:30-08:45	Evaluation & management of cam-type FAIS - the role of computer assisted technology	Naomi Kobayashi
08:45-09:00	Evaluation & management of pincer-type FAIS	Jung Mo Hwang
09:00-09:10	Anterior and lateral femoroacetabular excursion angles are helpful for assessing femoroacetabular impingement syndrome: a cross-sectional cohort study	Hong Seok Kim
09:10-09:20	Hip arthroscopy for the patient with femoroacetabular impingement secondary to Perthes-like deformity	Takahiroro Negayama
09:20-09:40	Panel Discussion	
Borderline hip dysplasia, Moderator: Soshi Uchida		**Speaker**
09:40-09:55	Assessment of hip dysplasia for arthroscopists	Jason Brockwell
09:55-10:10	The role of hip arthroscopy in borderline hip dysplasia	Suenghwan Jo
10:10-10:20	Femoral morphology in development dysplasia of the hip based on three-dimensional analysis with CT	Tetsuya Tachibana
10:20-10:30	Soft tissue causes and treatment of hip microinstability	John O'Donnell
10:30-10:50	Panel Discussion	
10:50-11:10	Coffee Break	
Osteoarthritis/Osteonecrosis of the hip, Moderator: Jason Brockwell		**Speaker**
11:10-11:25	The role of hip preservation surgery in early hip osteoarthritis	Jeong Kil Lee
11:25-11:40	The role of hip preservation surgery in early osteonecrosis of femoral head	Kuo-Chung Cheng
11:40-11:50	Arthroscopic osteochondral autologous transplantation for an elderly patient with a collapsed subchondral femoral head fracture: a case report	Suk-Kyoon Song
11:50-12:00	Clinical outcomes after arthroscopic decompression of subspinal impingement syndrome with two years minimum follow up	Jun-Young Yoo
12:00-12:20	Panel Discussion	
12:20-13:30	Lunch	
Hip capsule, Moderator: Ru-Yu Pan		**Speaker**
13:30-13:45	Trends of hip arthroscopy in Japan – how to manage the hip joint capsule	Kotaro R. Shibata
13:45-14:00	Advancements in hip capsular access and arthroscopic techniques	Soshi Uchida
14:00-14:10	Capsulotomy length measurement in hip arthroscopy: a cohort study of 226 hips	Hiroshige Hamada
14:10-14:20	The posterior capsule is distended by contrast medium in dysplastic hips	Hao-Che Tang
14:20-14:40	Panel Discussion	
Acetabular labrum, Moderator: John O'Donnell		**Speaker**
14:40-14:55	Factors associated with outcomes of labral repair	Yong Chan Ha

14:55-15:10	Indications of labral augmentation and reconstruction	Hajime Utsunomiya
15:10-15:20	Clinical outcomes after arthroscopic labral repair using all-suture type soft anchors	Hong Seok Kim
15:20-15:30	Wave sign - acetabular chondral delamination (ACD) in FAI and non-FAI patients	Ru-Yu Pan
15:30-15:50	Panel Discussion	
15:50-16:10	Coffee Break	
Extra-articular hip pathologies, Moderator: Yi-Sheng Chan		**Speaker**
16:10-16:25	Evaluation & management of extra-articular anterior hip pain	Sheng-Hsun Lee
16:25-16:40	Evaluation & management of greater trochanteric pain syndrome	Chunbao Li
16:40-16:55	Evaluation & management of deep gluteal syndrome	Sun-Jung Yoon
16:55-17:05	The prognosis of incomplete avulsion of the proximal hamstring tendon is determined by the avulsion location of the proximal hamstring tendon footprint.	Masayoshi Saito
17:05-17:15	Mid- to long-term clinical outcomes of arthroscopic surgery for external snapping hip syndrome	Chun-Ting Chu
17:15-17:40	Panel Discussion	
17:40-17:50	Closing Remarks	

Program Sunday, September 10, 2023

Cadaveric Course
Surgical Training Academy and Research Center
8F, Research Building, Chang Gung Memorial Hospital, Linkou, Taiwan

07:50-08:20	Registration	
08:25-08:30	Opening Remarks	
Central compartment		**Instructor**
08:30-08:45	Introduction of surgical technique	Yi-Sheng Chan
09:00-09:15	Demonstration of portal placement and evaluation	Yi-Sheng Chan
09:15-10:15	Practice	
10:15-10:30	Coffee break (optional)	
10:30-10:45	Demonstration of acetabular osteoplasty, labral detachment & refixation	Yi-Sheng Chan
10:45-12:00	Practice	
12:00-13:00	Lunch	
Peripheral compartment		**Instructor**
13:00-13:15	Introduction of surgical technique	Yong Chan Ha
13:30-13:45	Demonstration of capsulotomy, evaluation and femoral osteoplasty	Yong Chan Ha
13:45-15:00	Practice	
15:00-15:15	Coffee break (optional)	
15:15-15:30	Introduction of surgical technique	Soshi Uchida
15:30-15:45	Demonstration of capsular closure	Soshi Uchida
15:45-17:00	Practice	

Speakers introduction

Femoroacetabular impingement syndrome

Name	**Naomi Kobayashi**
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Education	2003-2006: Research fellow in Cleveland Clinic Foundation 1999-2003: Postgraduate school of medicine, Yokohama City University 1997-1999: Clinical resident in Fujisawa City Hospital 1991-1997: Yamagata University, school of medicine
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Professional Memberships	Japanese Orthopaedic Association Japanese Hip Society Japanese Society of Hip Arthroscopy

Evaluation & management of cam-type FAIS; The role of computer assisted technology

Naomi Kobayashi[1], Yohei Yukizawa[1], Masayoshi Saito[1], Emi Kamono[1], Yutaka Inaba[2]
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The ultimate goal of treatment for cam-type FAI is to resolve the bony impingement by surgical correction, or even by rehabilitation. In this term, it is essential to evaluate the impingement itself quantitatively. Usually, we cannot see the impingement point directly by any static imaging diagnosis, however, it is possible visualize it by utilizing the kinematic computer simulation based on CT model. In addition, it is possible to quantify the ROM, that would reflect the impingement condition. Thus, we have utilized computer simulation analysis for FAIS.

The concept of computer assisted technology for FAIS includes several steps. Initially, the exact point of the bony impingement is identified using simulation analysis, then virtual osteochondroplasty is performed. Improvements in the range of motion can then be evaluated using computer simulation again. In this way, the required area and depth of bone resection can be assessed preoperatively. Next, computed tomography-based navigation assistance can be used during actual surgery, to complete the osteochondroplasty in accordance with the preoperative planning. After surgery, postoperative evaluation provides valuable feedback to improve future planning and procedures. Furthermore, we can change the pelvic tilt virtually in simulation, that demonstrated the effect of posterior pelvic tilt on the impingement resolution.

In this presentation, I will talk about the role of computer assisted technology on the evaluation and management of cam-type FAIS.

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Professional Memberships	The Korean Orthopaedic Association The Korean Hip Society The Korean Fracture Society Korean Arthroscopy Society Korean Orthopaedic Society for Sports Medicine Korean Orthopaedic Ultrasound Society	

Evaluation & management of pincer-type FAIS

Jungmo HWANG[1]
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Pincer-type femoroacetabular impingement syndrome (FAIS) is a well-recognized condition in which excessive bone growth on the acetabular side leads to abnormal contact between the femoral head and the rim of the acetabulum. This contact can cause pain and may lead to cartilage and labral damage if not addressed. The evaluation and management of pincer-type FAIS typically involve a combination of conservative measures and, in some cases, surgical intervention.

The first step toward evaluation is to take a detailed medical history, including information about the onset, duration, and nature of symptoms, previous injuries, and any relevant medical conditions. A thorough physical examination is conducted, focusing on the hip joint to assess range of motion, strength, and any signs of impingement or instability. X-rays, MRIs, and/or CT scans are used to confirm the diagnosis, assess the extent of the impingement, and evaluate for associated hip joint damage.

The treatment of pincer-type FAIS involves a combination of conservative management and, in some cases, surgical intervention. The primary goal is to relieve symptoms, preserve hip joint function, and prevent further damage to the joint. Conservative management (rest, activity modification, physical therapy for hip strengthening, NSAIDs, and/or corticosteroid injections) should always be considered first when treating FAIS. If conservative treatments do not adequately address the symptoms or if there is significant joint damage, surgical intervention may be recommended. The surgical intervention aims to correct the underlying bony abnormalities in the rim of the acetabulum, alleviate impingement, and address any associated damage to the labrum and cartilage. There are two main surgical approaches used to treat pincer-type FAIS: arthroscopic surgery and open surgery. The choice between these approaches depends on the severity and complexity of the impingement and the surgeon's experience and preference.

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Previous Appointments		
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Professional Memberships	Member of Korean Orthopedic Association Member of Korean Hip Society Member of Korean Fracture Society Member of Korean Society of Bone and Mineral Research Member of Korean Society of Sarcopenia Member of Association Research Circulation Osseous	

Anterior and Lateral Femoroacetabular Excursion Angles Are Helpful for Assessing Femoroacetabular Impingement Syndrome: A Cross-sectional Cohort Study

Hong Seok Kim, Jung-Wee Park, Jun Won Park, You-Jung Ha, Young-Kyun Lee, Yun Jong Lee, Kyung-Hoi Koo

Purpose

This study aimed to develop a radiographic measurement to evaluate the femoroacetabular space using 3-dimensional (3D) hip models in asymptomatic hips, and to evaluate the reliability and validity of the femoroacetabular excursion angle (FAEA) in symptomatic patients.

Methods

From January 2020 to December 2020, we recruited patients with healthy hips to establish 3D models. Through the simulation of 14 activities of daily living (ADLs), anterior and lateral impingement-free FAEAs were measured. Another cross-sectional cohort was formed from consecutive symptomatic subjects with impingement signs during the same period. In the validation cohort, anterior and lateral FAEAs were assessed on modified Dunn's and anteroposterior views of the hip, respectively. We evaluated the reliability and clinical implications of the FAEAs.

Results

In the discovery cohort (n = 33), hips with collisions tended to have smaller computed tomography-based FAEAs than collision-free hips, although alpha and lateral center-edge (CE) angles were comparable. Additionally, hips with a lower quartile of FAEAs had a significantly higher number of ADLs with collisions. In the validation cohort (n = 411), the FAEA measurement was highly reliable (kappa statistics >0.95 for both interobserver and intraobserver reliabilities). The femoroacetabular impingement syndrome (FAIS) group (n = 165) showed significantly smaller anterior and lateral FAEAs than the non-FAIS group (all P < .001, Cramer V = .420). The optimal cut-off values for anterior and lateral

FAEAs were 32.6° and 48.9°, respectively. In univariate regression, anterior (odds ratio [OR] = 0.91; 95% confidence interval [CI] = 0.89-0.94) and lateral (OR = 0.91; 95% CI = 0.89-0.93) FAEAs were significantly associated with FAIS. Moreover, in multivariate regression adjusted for alpha and lateral CE angles, anterior FAEA remained a significant predictor (OR = 0.96; 95% CI = 0.93-0.99), and small FAEA was an independent risk factor for FAIS (OR = 1.99; 95% CI = 1.06-3.71) for any small FAEA (OR = 2.88; 95% CI = 1.32-6.31) for both small FAEAs.

Conclusion

The FAEA is a valid measurement for FAIS with high reliability.

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Professional Memberships	Japanese Orthopaedic Association	

Hip arthroscopy for the patient with femoroacetabular impingement secondary to Perthes-like deformity.

Takahiro Negayama[1], Yoichi Murata[1], Soshi Uchida[1]
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Introduction: Femoroacetabular impingement (FAI) secondary to Perthes-like deformity in young individuals leads to impingement-related pathologies such as labral tears and cartilage damage, making it challenging to determine an appropriate treatment approach. We report a case of bilateral FAI secondary to Perthes-like deformity with associated acetabular bone cysts, in which arthroscopic hip surgery was performed.

Case presentation: A 22-year-old male presented with bilateral hip pain since childhood, which remained untreated. The pain worsened over the past 3 months. The patient exhibited a limp and significant restriction of range of motion in both hips. The flexion abduction external rotation test, flexion adduction internal rotation test, and hip dial test were positive for both hips. Anteroposterior plain X-rays revealed Perthes-like deformity bilaterally, along with radiolucent areas in the acetabulum. The Dunn view suggested the presence of Cam lesions. CT scans showed bilateral acetabular bone cysts measuring 18 mm in diameter, communicating with the acetabulum, and anterior spurs. MRI indicated labral damage in both hips, but the cartilage layer was generally preserved. Based on these findings, a diagnosis of secondary FAI was established, and despite the progression of osteoarthritis, arthroscopic hip surgery was performed. Due to significant Pincer deformity, a peripheral capsular first approach was employed, involving joint labral reconstruction using the iliotibial band, FAI correction, and the transplantation of autograft and allograft bone harvested from Cam and Pincer lesions to address the acetabular bone cysts. The joint capsule was sutured using the double shoelace technique.

Discussion: Perthes disease or Perthes-like deformity can result in secondary FAI.

Previous reports indicate the presence of Cam lesions in 33% of individuals after childhood Perthes disease and clinical anterior impingement in 47% of cases. Surgical intervention has been shown to be effective for treating secondary FAI following Perthes disease; however, the procedures described in the literature are invasive. Arthroscopic hip surgery for secondary FAI with multiple pathologies, such as bone cysts within the joint, as in this case, offers a minimally invasive and useful approach.

Speakers introduction

Borderline hip dysplasia

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Education	FHKAM(Orth) 1998 FRCSEd(Orth) 1998 PG Dip Sports & Exercise Medicine (Bath, UK) 2005 MB ChB (Birmingham, UK) 1989	
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Professional Memberships	ISHA, The Hip Preservation Society – Board Member European Hip Society – Ordinary Member	

Assessment of Hip Dysplasia for arthroscopists

Dysplasia can be a challenge for hip arthroscopists: it can simply go unrecognised; or it mimic cam impingement tempting the arthroscopist to perform a femoroplasty.

This talk will describe the *Aetiological Classification of Hip Dysplasia [1]*, which divides dysplasia into 7 types according to aetiology. The most common types are Type 1 ‘classical’ or ‘sloping roof’ and Type 2 ‘post-impingement’ or ‘flat roof’.

Clinical suspicion, with appropriate examination, including ligament stability [2], foot progression angle [3], hip rotation [3] and thigh-foot angle [3], and careful assessment of appropriately positioned radiographs is usually sufficient, but CT or MRI is required to accurately measure femoral version.

Mild dysplasia is easily missed, and when assessing radiographs it’s appropriate to use Ogata’s technique [4] to measure the Wiberg Centre-Edge angle [5] and to consider Beck’s FEAR Index [6]. Tönnis technique is accurate to assess acetabular version on radiographs, except where there is a short posterior wall [7]. Look out for ‘pseudo-cam’ deformities of the proximal femur [1].

There is controversy about which method is most appropriate to measure femoral version: Murphy’s method [8] is highly reproducible, but gives higher readings than other methods.

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Professional Memberships	1. Member, Korean Orthopaedic Society 2. Member, Korean Shoulder and Elbow Society 3. Member, Korean Hip Society 4. Member, Korean Sport Medicine Society 5. Member, Korean Osteoporosis Society 6. Member, International Society for Hip Arthroscopy 7. Member, Orthopedic Research Society 8. Advisory board, Hip preservation committee, Korean Hip society 9. Advisory board, Guideline Establishment committee, Korean Hip Society 10. Advisory board, International Affair, Korean Sport Medicine Society 11. Editorial board, Korean Society for Computer-Assisted Orthopedic Surgery

The role of hip arthroscopy in borderline hip dysplasia

Hip arthroscopy has evolved rapidly over the last few decades and is currently viewed as the gold standard for treating various hip diseases. However, there is controversy on whether hip arthroscopy is a suitable therapeutic tool for borderline dysplasia of the hip.

Acetabular dysplasia is defined as insufficient coverage of the femoral head by the acetabulum and is often quantified by using Wiberg's lateral center-edge angle (LCEA). According to the original description, hips with an LCEA greater than 25 degrees are normal and those with an LCEA less than 20 degrees are dysplastic and thus pathological. The definition of borderline hip dysplasia is typically LCEA between 18 and 25 degrees which is usually used by clinicians when making a diagnosis. However, the term 'borderline' is somewhat problematic as it is a radiographic definition and only addresses one of several parameters contributing to hip stability. Therefore, other radiographic parameters such as the femoroepiphyseal acetabular roof (FEAR) index, angle of Tonnis, anterior and posterior wall index should also be considered.

Treatment of dysplastic hip should depend on the stability and the symptom of the hip. The treatment may include non-operative treatment, surgical treatment to address intra-articular impingement (FAI surgery and surgical treatment to correct instability. The treatment can be initiated with non-operative management which includes patient education, activity modification, physical therapy, simple medication or injection for pain. However, further treatment is necessary when the sign of instability including pain is evident and unresponsive to non-operative treatment.

With the recent evolution of hip arthroscopy, many surgeons are now using this tool to treat borderline dysplastic hips. Hip arthroscopy in borderline dysplastic hips allows the surgeon to detect intra-articular pathology and may provide valuable insights. However, there is little published literature on this topic, which is limited by short-term follow-up. In the systematic review by Jo et al., 13 studies looking at arthroscopy in dysplastic hips were identified which were all case series. Only six studies reported on subjective and/or objective outcomes. The indication for surgery was unclear and the patients had different

past medical and surgical history. Three studies reported on hip arthroscopy as an adjuvant tool and three as a stand-alone treatment. Labral tears had an overall prevalence of 77.3% and acetabular chondral lesions were more common than femoral lesions (59–75.2% versus 11–32%). Only two studies examined the outcomes of arthroscopy in borderline hip dysplastic cases. These studies reported that the mean modified Harris Hip score improved from 50 (poor) to 77 (fair) following arthroscopy. Based on the review, the authors concluded that the treatment response is likely a function of addressing the intraarticular pathology rather than the radiographic evidence of dysplasia.

Nonetheless, controversies exist on what the optimal arthroscopic treatment is for borderline hip dysplasia. Arthroscopic labral resection can lead to recalcitrant joint instability and thus should be prohibited. Several studies have described the effectiveness of arthroscopic capsular plication and labral preservation However, even if the labrum is repaired, it is important to preserve the iliofemoral ligament and other static stabilizers of the hip to prevent the irreversible consequences of hip instability. In addition, if the hip is sufficiently unstable pre-operatively, then addressing the intra-articular pathology alone by hip arthroscopy will be insufficient and the patient will require a reorientation of acetabulum.

It should be noted that the stability of the hip mainly depends on the osseous geometry. And restoring only the soft tissue may improve hip stability for a short period of time only, but it is likely that the soft tissues wear out again. A recent report showed an inferior functional outcome of PAO after failed hip arthroscopy in hip dysplasia. As such, the use of hip arthroscopy alone should be considered with caution.

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Education	Medicine, Tokyo Medical and Dental University, Tokyo, Japan	
Areas of Specialty	Orthopedics, hip arthroscopy, hip arthroplasty, hip osteotomy	
Professional Memberships	2013- The Japanese Orthopaedic Association Member 2016- The Japanese Hip Society Member	

Femoral morphology in Development dysplasia of the hip based on three-dimensional analysis with CT

Tetsuya Tachibana, Hiroki Katagiri, Tetsuya Jinno
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[Purpose] Ideal periacetabular osteotomy (PAO) should be performed according to the morphology of the proximal femur in order to prevent secondary femoroacetabular impingement (FAI). This study aimed to clarify the proximal femoral morphology of development dysplasia of the hip (DDH).

[Methods] Sixty-three hips that were performed PAO for DDH were included for DDH group. Thirty hips that was unaffected side of hips diagnosed as osteonecrosis of the femoral head were included for control group. Based on 3D image analysis using hip CT images, we created a coronal plane running parallel to the femoral neck axis and including the center of the femoral head. Each coronal slice was obtained by rotating clockwise in 15-degree steps around the neck axis. These slices provided 7 positions for measuring α-angles. The superior direction was defined as 12 o'clock and the anterior part as 3 o'clock. CAM deformity was defined as α-angle ≧60 degrees. Outcome measurements were a-angles with 7 slices, presence of CAM deformity, and correlations between CAM deformity and related factors (e.g., age, BMI, femur anteversion, and acetabular version).

[Results] The α-angles were 41 vs. 42 degrees between DDH vs. control group at 12:00, 44 vs. 47 degrees at 12:30, 47 vs. 50 degrees at 1:00, 50 vs. 51 degrees at 1:30, 52 vs. 50 degrees at 2:00, 52 vs. 46 degrees at 2:30, and 46 vs. 42 degrees at 3:00, respectively. DDH group showed significantly greater α-angle at the anterior direction of 2:30. Cam deformity was observed in 20/63 cases (32%) vs. 1/30 (13%) between DDH vs. control group. DDH group had CAM deformity at a more anterior direction (2:00) than control group. The presence of cam deformity did not correlate significantly with age, BMI, CE angle, femoral anteversion, and acetabular version.

[Conclusion] The prevalence of CAM deformity in DDH patients was in 32%. CAM deformity of DDH was located in a more anterior direction.

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Previous Appointments	PRESIDENT ISHA PRESIDENT, AUSTRALIAN HIP ARTHROSCOPY SOCIETY	
Education	MBBS, MELBOURNE FRACS, AUSTRALIA FAOrthA	
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Professional Memberships	ISHA, The Hip Preservation Society Australian Orthopaedic Association Australian Medical Association	

Soft tissue causes and treatment of hip microinstability

Hip instability, such as hip dislocation, or in association with severe acetabular dysplasia, has been well accepted and understood for many years. However, milder forms of instability, which are not associated with bony abnormalities, have not been so well accepted or understood until more recent times. Even the terminology remains contentious. In this presentation I will use the term microinstabilty, which Safran has defined as "extra-physiologic hip motion that causes pain, with or without symptoms of hip joint unsteadiness", and we will consider hip microinstability which is the result of soft tissue (labrum, ligament and capsule) factors.

Cadaveric experiments have demonstrated motion of the femoral head relative to the acetabulum in normal hips, and MRIs in asymptomatic ballet dancers have demonstrated subluxation of the hip during extreme range of motion. Even the normal hip is not simply a perfect sphere rotating inside a perfect sphere.

Symptoms of microinstability generally include insidious onset of pain, and it is unusual for patients to complain of a feeling of instability or giving way.

Positive examination findings may include: a high Beighton score, positive Dial Test, positive Lig. Teres Test, and positive provocation tests (e.g. positive extension/external rotation test).

Imaging should include xrays to exclude acetabular dysplasia, and to check the FEAR Index, and look for a Cliff Sign, as well as MRI, or MRA scans.

Intra-operative confirmation of microinstabity may include marked ease of hip distraction, a thin hip capsule, and particular patterns of labrum and articular cartilage injury.

Treatment may be non-operative or operative. Operative treatments may include repair or reconstruction of torn labrum, debridement or reconstruction of the Teres Ligament, and capsule repair, plication, or reconstruction.

Two recent consensus papers may help to clarify these concepts.

1. Diagnosing hip microinstability:an international consensus study using the Delphi methodology. Vikas Khanduja, et al KSSTA, 2022
2. Criteria for operating room confirmation of the diagnosis of hip instability: the results of an international expert consensus conference.

Speakers introduction

Osteoarthritis/Osteonecrosis of the hip

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Professional Memberships		

The role of hip preservation surgery in early hip osteoarthritis

The understanding of the biomechanics, physiology, and pathology of the hip joint has dramatically improved as open and arthroscopic surgery has developed. This knowledge has greatly helped improve the function and lifespan of the hip joint. There is a clear correlation that hip osteoarthritis progresses due to abnormal hip biomechanics. Hip osteoarthritis is a typical disease that is increasing along with the aging population. In the hip joint, osteoarthritis can occur due to various causes such as degenerative osteoarthritis, avascular necrosis of the femoral head, and peritrochanteric fractures. With the increasing population engaged in sports, hip osteoarthritis can also occur in the younger population.

If symptoms of early osteoarthritis are ignored, hip osteoarthritis gradually progresses. In the case of early osteoarthritis, non-surgical treatment can be attempted first, which can also slow down the progression of the disease. If necessary, preservation surgery can be considered in early osteoarthritis. Proper preservation surgery can restore abnormal biomechanics around the hip joint to normal and prevent cartilage damage. This can stop the progression of arthritis and reduce the need for total hip arthroplasty. It's important for orthopaedic doctors to understand how the field of hip preservation has developed and the latest information about the steps to consider when hip pain appears in the clinic.

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The role of hip preservation surgery in early osteonecrosis of femoral head

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Osteonecrosis of the femoral head (ONFH) is caused when circulation within the femoral head is disrupted. Historically, ONFH has been treated only focus on bony of head only, but with increasing incidence in a younger, active population, measures to preserve the native hip joint have been explored. Recently, several joint-preserving procedures have been suggested to improve the outcome, including hip arthroscopy.

Hip arthroscopy has emerged as a diagnostic and therapeutic tool to direct visualization of the joint, aids the staging of the disease, and to addressing the often-coexisting intra-articular pathology (labral tears, chondral delamination, loose bodies and synovitis) thereby improving the clinical outcome in some patients. **I**n the speech, we will explain indications for the arthroscopic-assisted core decompression or in conjunction with arthroscopic hip preservation surgery in pre-collapse stages with such as labral tears and FAI, and the risks what may fail to confer meaningful improvements in bone quality and function and has a high rate of conversion to THA.

We also will focus on surgical technique procedures, from patient position, chondral management both of acetabular and femoral head, labral management and final decompression and grafting, and the postoperative Care.

Based on the available literature, hip arthroscopic-assisted preservation procedure may effectively reduce pain and increase survivorship of the native hip in patients with pre-collapse ONFH. However, future research is imperative to understand evidence the use of biologic adjuncts such as BMAC or Chitosan in conjunction with these procedures.

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ARTHROSCOPIC OSTEOCHONDRAL AUTOLOGOUS TRANSPLANTATION FOR AN ELDERLY PATIENT WITH A COLLAPSED SUBCHONDRAL FEMORAL HEAD FRACTURE: A CASE REPORT

Suk-Kyoon Song[1], Soshi Uchida[2]
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Femoral head fractures typically occur in 5% to 15% of all hip dislocation cases. However, there are some cases that exist in which a femoral head fracture occurs without a hip dislocation. Traumatic subchondral fractures of the femoral head are rare and treatment is difficult to manage if collapse of the femoral head occurs. In the case of a femoral head collapse due to a traumatic subchondral fracture, nonsurgical treatment can lead to joint incongruity and post-traumatic osteoarthritis due to increased stress on articular cartilage if weight bearing occurs. Therefore, hip joint preserving procedures such as osteochondral autologous transplantation (OAT), arthroscopic debridement, and microfracture are important in treating such lesions and inducing the healing process. In older patients, total hip arthroplasty (THA) may be a favorable treatment option for traumatic subchondral fractures where femoral head collapse has occurred. However, THA might not be suitable if advanced osteoarthritis isn’t present. In this report, we present the case of an elderly patient with a collapsed subchondral fracture of the femoral head and osteochondritis dissecans (OCD) femoral head lesion who received arthroscopic osteochondral autologous transplantation (OAT) and was assessed postoperatively by midterm follow-up.

In our study, we reported that surgical technique of arthroscopic OAT and good clinical outcome for the treatment of osteochondritis dissecans of the femoral head. Hip

arthroscopy is less invasive and a promising tool for assessing and treating hip intra-articular pathologies.

In our current case, we obtain good mid-term follow-up results by performing arthroscopic OAT on a traumatic subchondral fracture patient with osteoporosis. In the future, it is necessary to collect more cases similar to our current patient profile and conduct follow-up studies in order to best compare this method to other joint preservation treatments. OAT may be a valid surgical method to prevent the development of delayed major complications that would require future total hip arthroplasty procedures.

In this study, the arthroscopic OAT procedure was effective in treating a traumatic subchondral femoral head fracture in an elderly patient, yielding favorable postoperative results. Arthroscopic OAT is a safe and strong surgical procedure for joint preservation in potential THA patients.

Keywords: Traumatic subchondral fracture, Femoral head fractures, Osteochondral autologous transplantation

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Areas of Specialty	Hip & Knee joint
Professional Memberships	none

Clinical outcomes after arthroscopic decompression of Subspinal impingement syndrome with two years minimum follow up

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Purpose:

This retrospective observational study was designed to assess the clinical outcomes after arthroscopic subspinal decompression in patients with hip impingement symptoms.

Methods: Retrospective analysis of patients who underwent arthroscopic subspinal decompression has been performed. The indications for surgery were femoroacetabular impingement (FAI), or subspinal impingement. Pre-operative radiographs were assessed for anterior inferior iliac spine type. Intra-operative diagnosis of low anterior inferior iliac spine was based on the level of anterior inferior iliac spine extension relative to the acetabulum and the presence of reciprocal labral and chondral lesions.

Results: Forty-five patients underwent arthroscopic subspinal decompression between 2014 and 2020. The patients were followed for a minimum of 24 months (24-60 months). Intra-operatively, grade 2 anterior inferior iliac spine was found in 25 patients and grade 3 anterior inferior iliac spine was found in 20 patients. MHHS and HOS scores increased from mean pre-operative scores of 52 and 48 to 92 and 89, respectively. Two patients were recurred subspinal impingement during follow-up.

Conclusions: Arthroscopic subspinal decompression improved significantly clinical outcomes, a low risk of postoperative complications, and subsequent revision surgeries at a minimum of 24 months follow-up. Level of evidence: IV.

Keywords: Hip arthroscopy; Hip impingement; Low AIIS; Subspinal impingement.

Speakers introduction

Hip capsule

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Professional Memberships	*International Society of Hip Arthroscopy (ISHA)* *Journal Hip Preservation Surgery, Editorial Board* *Japanese Orthopedic Association* *Japanese Society for Replacement Arthroplasty*	

Trends of Hip Arthroscopy in Japan – How to Manage the Hip Joint Capsule

Kotaro R Shibata M.D., PhD

Since the concept of femoroacetabular impingement (FAI) was accepted, advances in arthroscopic surgery have resulted in it becoming one of the fastest-growing orthopaedic procedures this decade, particularly in the western society. However, secondary hip osteoarthritis (OA) due to hip dysplasia is more common among the Japanese population subsequently because of concerns of post-surgery instability, hip arthroscopy has not grown as dramatically in Japan. Utilizing the NDB Open Data Japan we investigated the present incidence and trends of hip arthroscopy surgery in Japan. We also looked at the characteristics of Japanese FAI patients from our institutions.

With the increase in the number of hip arthroscopy surgeries and expansion of its indication, post arthroscopic hip instability has also become a recognize problem in the western society. I would like to look at innovations and trends in capsule management in hip arthroscopy and also preset the surgical technique we utilize to tackle this entity.

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Advancements in Hip Capsular Access and Arthroscopic Techniques.

Soshi Uchida MD, PhD
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Hip arthroscopy has been evolving dramatically over the past 15years, with advancements in surgical techniques playing a pivotal role in improving patient outcomes. This presentation focuses on our techniques for hip capsule access, providing didactics on our refined approaches. We aim to share our experience and highlight the importance of capsular management for successful hip arthroscopy procedures.

In the early days of hip arthroscopy, arthroscopists primarily relied on arthroscopic portals without capsular release. However, with the evolving understanding of femoroacetabular impingement (FAI), it became evident that capsular releasing procedures could greatly enhance accessibility of the scope and instruments. This realization prompted a transition in capsular management techniques over time.
Historically, our capsular management techniques progressed from capsular release without repair to partial repair, complete repair, and eventually shoelace capsular repair. These techniques aimed to restore stability while maintaining the integrity of the hip capsule. Shoelace capsular repair, in particular, gained popularity as it provided a secure closure of the capsular defect. However, despite the implementation of shoelace capsular repair, we encountered cases that did not achieve optimal outcomes.

Through careful observation and analysis, we have recognized that certain cases, particularly those with laxity or microinstability, require a different approach. We have found that periportal capsulotomy with repair technique yields (Zhang et al 2019) favorable results in such cases. This technique involves targeted capsulotomy near the portals followed by meticulous repair, optimizing stability and facilitating improved surgical outcomes.

By sharing our experiences and insights, we aim to empower fellow arthroscopists to refine their techniques and enhance patient outcomes. We believe that the continued evolution of hip arthroscopy requires a flexible approach to capsular management, with an

understanding that each patient may require a unique combination of techniques for optimal results.

In conclusion, periportal capsulotomy with repair in hip arthroscopy has significantly impacted the outcomes of surgical procedures. By incorporating this technique, surgeons can address both impingement-related pathology and associated capsular laxity or microinstability, leading to improved patient outcomes. This presentation aims to provide valuable insights into the technical aspects and benefits of this evolving approach, contributing to the advancement of hip arthroscopy techniques.

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Capsulotomy length measurement in hip arthroscopy: a cohort study of 226 hips.

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[Background/Purpose] Although capsulotomy is common in hip arthroscopic surgery, there are concerns that it may damage the iliofemoral ligament and cause instability. Hence, we performed a skip capsulotomy method that preserved the iliofemoral ligament and measured the capsulotomy length during surgery. The purpose of this study is to report the capsulotomy length in patients who underwent this method and to clarify the relationship between capsulotomy length and patient background.

[Methods] A total of 226 consecutive hips (91 males, 135 females) who underwent arthroscopic hip procedures with labrum repair, subspine decompression and cam osteochondroplasty between May 2021 and May 2023 were analyzed. The capsulotomy length was measured using a hip arthroscopy measure. The relationship between age, sex, acetabular coverage and the capsulotomy length were assessed.

[Results] The capsulotomy length was 19.5+4.8mm. There was no correlation between age and capsulotomy length. The capsulotomy length in women was significantly smaller than that in men (female: 17.3+3.8mm, male: 22.9+4.1mm, $p < 0.001$). Acetabular dysplasia (lateral center edge angle < 25°) was found in 71 hips, and the capsulotomy length was significantly smaller than in cases without dysplasia (acetabular dysplasia: 17.7+3.9mm, no dysplasia: 20.6+4.9mm, $p < 0.001$).

[Discussion] There are no studies investigating the capsulotomy length during hip arthroscopy in consecutive cases, and there are no reports of more than 200 hips cases. The capsulotomy length is considered as a potential problem in hip arthroscopic surgery, and it has rarely been measured. The capsulotomy length should be aggregated and examined as standard data in hip arthroscopy. [limitation] These procedures in this study were performed by a single surgeon in a single institution, therefore it was suggested that the length of capsulotomy may be adjusted according to the pathology of the case.

[Conclusion] The capsulotomy length was significantly smaller in women and dysplasia cases.

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The posterior capsule is distended by contrast medium in dysplastic hips

Purpose

In the setting of acetabular dysplasia, the increased translational motion of the femur may damage the labrum and cartilage, as well as stretch the capsule. The purpose of the study was to investigate the relationship between the acetabular coverage and the capsular stiffness by assessing the distension of anterior and posterior joint recesses on the hip computed tomography arthrography.

Methods

One hundred thirty-three patients (138 hips) with a median age of 36 years (range 18–50 years) who received the computed tomography arthrography for evaluation of nonarthritic hip pain in our institute between 2015 and 2017 were retrospectively reviewed. The maximal distance between the anterior/posterior capsule and the anterior femoral head–neck junction/posterior femoral head on the axial imaging of computed tomography arthrography was defined as the width of anterior/posterior joint recess. The width of anterior/posterior joint recess was adjusted with the diameter of the femoral head and was then compared between acetabular dysplasia (lateral center–edge angle < 25°), normal acetabulum (lateral center–edge angle between 25 and 39°), and deep acetabulum (lateral center–edge angle > 39°). In addition, the standard univariate linear regression analysis was used to investigate the relationship between the adjusted width of anterior/posterior joint recess and anterior/posterior coverage of the hip, determined by the anterior/posterior wall index.

Results

The adjusted width of posterior joint recess was significantly greater in the acetabular dysplasia group than the normal acetabulum and deep acetabulum groups ($p < 0.01$ and $p = 0.02$, respectively). There was no significant difference of the adjusted width of anterior joint recess between the groups (n.s.). The adjusted width of posterior joint recess had a significant but weak negative correlation with the anterior wall index ($r = -0.25$, $p < 0.001$), and no correlation with the posterior wall index ($r = -0.0004$, n.s.). There was no

significant correlation between the adjusted width of anterior joint recess and the anterior/posterior wall index (r = 0.05, n.s./r = 0.07, n.s.).

Conclusions

The distension of posterior capsule on the computed tomography arthrography was significantly greater in acetabular dysplasia. In addition, there was a significant but weak negative correlation between the distension of posterior capsule and the anterior coverage of the hip. It indicated a looser posterior capsule was observed in a dysplastic hip. The relevance of posterior capsular laxity to clinical outcomes warrants further investigation. Given the fact that the distension of anterior capsule was not significantly higher in acetabular dysplasia, the need of anterior capsular plication in a dysplastic hip should be carefully evaluated.

Speakers introduction

Acetabular labrum

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Factors associated with outcomes of labral repair

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Hip arthroscopy is a growing field in sports medicine, with femoroacetabular impingement and labral tears being common indications for surgery. Excellent clinical results have been reported in the literature for both labral debridement and repair. However, superior functional outcomes have been shown with labral repair. The acetabular labrum in a normal hip joint comprises 22% of the surface area and 33% of the total volume. It provides a seal that helps maintain synovial fluid pressure, which contributes to joint stability, lubrication, and protection of the cartilage. Accordingly, hip arthroscopy for repair of the labrum is gaining popularity.

Several techniques for labral repair have been described in the literature, including loop fixation techniques and labral base techniques. Both techniques involve placement of a suture anchor in the acetabular rim to provide an anatomic fixation. Most of surgical techniques are shown moderate to excellent clinical outocmes at sthor-term and mid-term follow-up. However, factors such as women, severe hip dysplasia, excess acetabular retroversion or femoral version, a large cam deformity, and workers' compensation are associated with less favorable clinial outcomes after hip arthroscopy..

Therefore, to achive favorable outcomes after acetabular labral repair, the appropriate surgical indications for hip arthroscopy and right surgery is mandatory.

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Indications of labral augmentation and reconstruction

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Acetabular labrum plays an important role in maintaining stability of the hip. Hip suction seal is a key to centralize the hip joint. A biomechanical study revealed that labral width of 6mm is the cutoff point and smaller labrum has inferior suction seal parameters.

Maldonado et al. reported that labral reconstruction with the width of > 6.5mm resulted in stronger suction seal compared to with the width of < 6.5mm. Based on the biomechanical studies, it should be important to reconstruct or augment wide enough labrum to maintain hip suction seal. Regarding graft selection, Cooper et al. showed superior clinical outcomes after labral reconstruction using autologous ITB than those after labral reconstruction using allograft ITB. The author prefers segmental labral reconstruction / augmentation using autologous ITB. Kite technique provides easier option for this procedure.

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Clinical outcomes after Arthroscopic labral repair using All-suture type soft anchors

Hong Seok Kim, Jung-Wee Park and Yong-Chan Ha

Background: The purpose of this study was to assess the clinical results and complicatiosn of arthroscopic labral repair repair using all-suture type soft anchors for patients with labral tears.

Methods: From January 2015 to December 2019, 89 hips with labral tears underwent arthroscopic labral repair using all-suture type soft anchors, followed by CTA one year later. Outcomes and intraoperative parameters were prospectively measured with the UCLA score, the modified Harris Hip Score (MHHS), the Hip disability and Osteoarthritis Outcome Score (HOOS), and the Hip Outcome Score (HOS). The incidence of malposition of anchor sutures was assessed on follow-up CTA.

Results: Nine patients were lost to follow-up. A total of 80 hips were finally analyzed. Survival rate, using reoperation or progression of osteoarthritis as the primary end points, was 100 %. 83 % of cases had excellent and good MHHS scores after 2 years of follow-up. Fifteen anchors were placed in cartilage–bone transitional zone. There was no progression of arthritic change at the latest follow-up.

Conclusions: Labral repair using all-suture type soft anchors resulted in significant postoperative improvements and cartilage penetration or broken tip were not influence of clinical outcomes after 2 years of follow-up.

Keywords: Anchor, Arthroscopy, Computed tomography arthrography, Labral repair

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Professional Memberships	Director of Asia Society of Hip Arthroscopy Director of Taiwan Orthopedic Association. Director of Sports Medicine Association, Taiwan. Director of Taiwan Orthopedic Research Association.	

Wave Sign - Acetabular Chondral Delamination(ACD) in FAI and Non-FAI Patients

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Hip morphology may influence the pattern of articular damage. Patients with femoroacetabular impingement (FAI), borderline dysplasia, acetabular dysplasia and hip joint laxity or repetitive hip hyperflexion activities may demonstrate variant grade and location of cartilage impairment. Acetabular chondral delamination (wave sign) is described as an area of fibrous degeneration of the cartilaginous surface and the chondrolabral junction from the subchondral bone owing to partial detachment. Debonding of the articular cartilage, which can progress to a chondral flap and finally lead to losing of articular cartilage and expose the underlying subchondral bone. It was found that 3.0-T MRI may have a relatively high sensitivity, specificity, PPV, and NPV for diagnosis of ACD in patients with FAI but there is still no consensus in literature. Preoperative confirmation of symptomatic ACD remains a challenge. In our study we investigated the incidence of ACD in FAI and Non-FAI patients and the correlation with labral tear and described some rare cases of isolated ACD. Treatment options including debridement, microfracture, osteochondroplasty, osteoplasty and chondrolabral repair, which were based on associated labral, bony and chondral lesions.

Speakers introduction

Extra-articular hip pathologies

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Evaluation & management of extra-articular anterior hip pain

Sheng-Hsun Lee

Anterior hip pain is the most common presentation of a hip pathology. However, several other pain sources can mimic intra-articular pathology, including extra-articular musculoskeletal causes, lumbar spine lesion, genitourinary or gynecological pathology, inguinal hernia, or intra-abdominal pathology. Of the extra-articular musculoskeletal causes, common diagnoses are extra-articular hip impingement, greater trochanter pain syndrome, iliopsoas snapping or tendinitis, core muscle injury, or osteitis pubis.

Patients with ischiofemoral impingement usually present with pain in groin or buttock area, especially with hip extension, adduction, and external rotation. Sciatica may sometimes be present. MRI to evaluate ischiofemoral and quadratus femoris space can assist in diagnosis. Subspine impingement is caused by AIIS impinging anterior femoral neck in straight hip flexion. The etiology of the prominent AIIS could be avulsion, acetabular retroversion, post-PAO, or apophysitis in adolescent. Patients usually present with anterior hip pain on flexion, internal rotation, and adduction. The symptoms may overlap with FAI, but may have additional tenderness over AIIS. Iliopsoas impingement, or “internal snapping”, is caused by repetitive traction injury, scarred iliopsoas tendon which is adherent to the capsule-labrum complex. The 3 o’clock location of labral tear should raise the suspicion of such diagnosis. The symptoms include anterior hip pain when active flexion, snapping sensation, or positive hip impingement test.

Core muscle injury, also known as sports hernia or athletic pubalgia, usually presents as insidious onset of groin pain aggravated by activity. The pain is commonly proximal to inguinal ligament but can radiate down the medial thigh due to concomitant adductor longus tendinopathy. Osteitis pubis is most commonly in athletes. It is a type of pubic symphysis dysfunction, with symptoms of groin or lower abdominal pain, with or without pain in adductor area.

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Greater Trochanteric Pain Syndrome

Greater trochanteric pain syndrome (GTPS) is a group of disorders that cause pain in the lateral aspect of the hip, including trochanteric bursitis, gluteus medius and gluteus minimus tendinopathy, and external snapping hip. Definitive diagnosis of GTPS is difficult because numerous tissue structures around the hip can cause pain. A thorough history and physical examination can help determine the source of pain, and plain radiographs and magnetic resonance imaging not only corroborate the location of the lesion but also help rule out differential diagnoses. Most patients with GTPS have good results with conservative treatments, including physical therapy, non-steroidal anti-inflammatory drugs, and corticosteroid injections. Surgery is recommended for patients with chronic pain who do not respond to conservative treatment. Both open and arthroscopic surgery can be effective. However, arthroscopic surgery is a minimally invasive surgical procedure with the advantages of small incisions, fewer complications, and a shorter recovery period, which is widely favored by doctors and patients. There are many plans for arthroscopic surgery to treat GTPS, and the appropriate surgical plan should be selected according to the specific condition.

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Education		
Areas of Specialty		
Research Interests	● Adult Hip Reconstruction (Primary and Revision Total hip arthroplasty) ● Hip Preservation Surgery (Hip Arthroscopy/PAO/Surgical Hip Dislocation) ● Hip and Pelvis Fracture (Acetabular and pelvic fracture surgery) ● Tissue Engineering and Biomaterial Deep Learning Computer Vision Technology ● Orthopedic basic research (tumor, osteoporosis, sarcopenia, and drug delivery system)	

Deep Gluteal Syndrome

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The deep gluteal syndrome, resulting from the sciatic nerve entrapment in the deep gluteal space , can give rise to posterior hip pain. Formerly referred to as piriformis syndrome, this condition encompasses more than just the piriformis muscle in affecting normal sciatic nerve excursions. Recent classifications have emerged based on pathological locations impeding scatic nerve excusrion during hip motion, leading to three distinc entities: 1) Deep gluteal syndrome, 2) ischiofemoral impingement, and 3) ischial tunnel syndrome (proximal hamstring syndrome).

1) Deep gluteal syndrome (DGS) / Sciatic nerve entrapment syndrome

This condition may be caused by any structure within the deep gluteal space, defined by the greater sciatic notch proximally, hamstring muscle distally, linea aspera of the proximal femur laterally, sacrotuberous ligament medially, femoral neck anteriorly, and gluteus maximus posteriorly. Symptoms vary in severity and include sitting pain, walking pain, radicular pain in the lower back or hip, paresthesia of the affected buttock, and inguinal pain. Often, a history of minor buttock injury is reported. Diagnosis involves careful consideration of patient history, symptom presentation, and physical examination. Proper differentiation from spinal pathologies is crucial. Treatment options range from conservative measures to endoscopic or open sciatic nerve decompression.Sciatic nerve decompression through open or endoscopic techniques can be performed in patients of DGS who have moderate to severe symptoms or undergo a failure of conservative treatment, including multiple steroid or botulism toxin injections. The surgical approach for

sciatic nerve decompression is effectively performed utilizing advanced hip arthroscopic techniques. During endoscopic exploration, fibrous bands extending from the greater trochanter are frequently encountered. In cases of heightened severity, there might be bursal thickening of the greater trochanter, which extends over small branches of the inferior gluteal vessel originating from the inferior border of the piriformis muscle. Ensuring meticulous hemostasis of these vessels is imperative to avert substantial bleeding at the initial stages of decompression. In scenarios where the deep gluteal space is distended with arthroscopic fluid, optimizing results involves maximal internal rotation of the operated extremity and elevation of the ipsilateral hip compared to contralateral side for enhanced sciatic nerve visualization. Chronic sciatic nerve entrapment is often associated with endoscopic findings of diminished perineural fat, hypovascular epineural blood flow, and reduced nerve excursion. The comprehensive release of all constricting elements, including fibrovascular bundles, tendons, and muscles, is necessary to alleviate sciatic nerve compression. When identifying the sciatic nerve proves challenging due to thickened fibrous tissue, confirming its presence distally to proximally, particularly at the level of the femoral insertion of the gluteus maximus sling, is a prudent approach for enhanced safety.

2) Ischiofemoral impingement (as a part of pelvico-trochanteric impingement)

Pelvicotrochanteric impingement refers to bony abutment resulting from malunion after hip arthroplasty fracture. Altered hip joint anatomy due to trauma or surgery can lead to ischiofemoral impingement, commonly occurring in antetorsioned femurs. Degenerative lumbar kyphosis may reduce ischiofemoral distance, potentially observed as high signal changes in the quadratus femoris muscle on MRI.

3) Ischial tunnel syndrome

Also known as hamstring syndrome, this condition induces pain, limping, and numbness in the buttock and leg. Causes include proximal hamstring avulsion, trauma, inflammation, or scar tissue in the ischial tunnel. Symptoms involve pain in the buttock and posterior thigh, worsened by hip flexion and knee extension, along with tenderness at the lateral ischium. Diagnostic tools include the positive hamstring active test. Conservative treatments encompass stretching exercises, avoiding prolonged sitting, and image-guided corticosteroid injections. Surgical options include reattaching the hamstring tendon to the ischium or sciatic nerve decompression.

In summary deep gluteal syndrome and related conditions stem from sciatic nerve compression and entrapment within various anatomical structures. A comprehensive understanding of these entities, their etiology, diagnostic criteria, and treatment options is vital for effective management and improved patient outcomes.

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Areas of Specialty	Hip arthroscopy, Sports medicine	

The prognosis of incomplete avulsion of the proximal hamstring tendon is determined by the avulsion location of the proximal Hamstring tendon footprint.

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Purpose: To test the hypothesis that the prognosis of incomplete avulsion of the proximal hamstring tendon would be worse whether the avulsion location reached the proximal part of the conjoined tendon (CJ) footprint or not.

Methods: We reviewed 345 consecutive athletes with a hamstring injury. Based on magnetic resonance imaging, incomplete avulsion of the proximal hamstring tendon was divided into 2 cases according to avulsion location without (case A) or with (case B) avulsion of the proximal part of the CJ footprint. We compared the time until return to play, subjective outcomes, and success rate of avoiding surgery between cases.

Results: Incomplete avulsion of the proximal hamstring tendon was detected in 47 athletes (13.6%). Thirty-four athletes were classified as case A, and 13 as case B. Forty-two athletes (89.4%) were followed up until returned to play. The median time from pain onset to return to play was significantly longer in case B than in cases A (B, 39.3 weeks; A, 8.0 weeks; P = 0.00015). Subjective outcomes at the return to play were significantly poorer in case B than in cases A (P = 0.00054). The success rate of avoiding surgery was significantly poorer in case B (55%) than in case A (100%) (P = 0.00062).

Conclusions: Incomplete avulsion of the proximal hamstring tendon was observed in 13.6% of hamstring injuries. Return to play, subjective outcomes and success rate of avoiding surgery were significantly poorer with avulsion of the proximal part of the CJ footprint.

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Mid- to Long-term Clinical Outcomes of Arthroscopic Surgery for External Snapping Hip Syndrome

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Purpose: This study evaluated the outcomes of arthroscopic surgery for the treatment of external snapping hip at two- to 10-year follow-ups.

Methods: 18 patients with refractory external snapping hip treated by arthroscopic surgery were enrolled in this prospective study. All patients underwent unsuccessful conservative treatment for more than three months before surgery. We made diamond-shaped defects on the iliotibial band and resected peripheral fibrosis tissues for iliotibial band release with an arthroscopic approach. The visual analog scale, modified Harris hip score, and return to previous level of activity were evaluated as functional outcomes. In addition, residual discomfort or the presentation of complications were also investigated.

Results: The average follow up period was seven years. The modified Harris hip score increased from 70.08 preoperatively to 93.14 postoperatively, and the visual analog scale score decreased from 3.67 preoperatively to 1.17 two weeks after the operation and declined to 0.33 at the last follow-up. Neither recurrence of snaps nor complications were recorded. Two patients complained of a tight sensation with tenderness after exertion. Our clinical outcomes were compatible with those of previous studies, and no long-term complications were noted, even with a relatively longer follow-up period than what was reported in previous studies.

Conclusions: Arthroscopic surgery is a safe and effective treatment that can provide promising long-term clinical outcomes for patients with refractory external snapping hip.

Note

Sponsorship and Endorsement

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用法與用量：建議劑量為 40 mg，靜脈注射或肌肉注射，接著視需要每 12 至 24 小時可再給予 20 mg。如採靜脈注射，可直接迅速地注入靜脈或注入既有的靜脈注射管線中。如採肌肉注射，則需將注射液緩慢地注入肌肉深部。
禁忌：對本品有效成分中的任何賦形劑過敏(參閱賦形劑清單)。以前發生過任何一種嚴重的藥物過敏反應，尤其是皮膚反應如史蒂文生氏- 強生症候群、藥物疹合併嗜伊紅性白血球症及全身症狀(DRESS 症候群)、毒性表皮壞死溶解、多形性紅斑，或已知對磺醯胺(sulfonamide) 類藥物過敏的病人(參閱警語/ 注意事項，副作用/ 不良反應)。活動性之消化性潰瘍或胃腸(GI)出血。使用acetylsalicylic acid 或非類固醇抗發炎藥(NSAIDs)，包括第二型環氧酶(COX-2) 抑制劑等藥物後發生支氣管痙攣、急性鼻炎、鼻瘜肉、血管神經性水腫、蕁麻疹、或其他過敏性(allergic-type) 反應的病人。懷孕第三期與授乳期(參閱特殊族群注意事項– 懷孕與哺乳，臨床前安全性資料)。重度肝功能不全(血清白蛋白< 25 g/l 或Child-Pugh 評分≧ 10 分)。發炎性腸道疾病(inflammatory bowel disease)。充血性心衰竭(NYHA II-IV)。在冠狀動脈繞道手術(CABG) 後，術後疼痛之治療(參閱副作用/ 不良反應與臨床試驗資料)。確定的缺血性心臟病、周邊動脈疾病及/或腦血管疾病。
警語與注意事項：Dynastat 已在牙科、骨科、婦科(主要是子宮切除術) 及冠狀動脈繞道手術做過研究。在其他手術類型(如胃腸道或泌尿道手術) 使用Dynastat 的經驗有限 (參閱臨床試驗資料)。目前並無研究靜脈注射或肌肉注射以外的使用方式，因此不能使用其他的注射方式。因為使用高劑量parecoxib、其他COX-2 抑制劑和NSAIDs 時發生不良反應的可能性會增加，所以接受parecoxib 治療的病人，增加劑量後應再接受檢查。如果療效未增加，應考慮改用其他治療選擇(參閱用法用量)。用Dynastat 治療超過三天的臨床經驗很有限(參閱臨床試驗資料)。
藥品交互作用：對於正在使用warfarin 或其他抗凝血劑的病人，應該監測抗凝血治療，尤其在開始Dynastat 治療的最初幾天，因為這些病人發生出血併發症的風險會升高。parecoxib 與低劑量acetylsalicylic acid併用時，發生胃腸道潰瘍或其他胃腸道併發症的風險比單獨使用parecoxib 時增加。正在接受fluconazole 治療的病人，應減低parecoxib 的劑量。對於正在接受ketoconazole 治療的病人通常無須調整劑量。接受鋰鹽治療的病人，開始或改變parecoxib 治療時，應密切監測鋰的血清濃度。靜脈注射parecoxib 40 mg 與propofol (CYP2C9 受質) 或midazolam (CYP3A4 受質) 併用，對於靜脈注射propofol或靜脈注射midazolam 的藥動學(代謝和暴露量) 或藥效學表現(心電圖作用、精神運動試驗和從鎮靜狀態清醒) 都沒有影響。
過量：因parecoxib 用藥過量而通報之不良事件，亦曾於建議劑量的使用時提及。
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參考：SPC 20220718-1
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