HIP ARTHROSCOPY

Essay

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منظـــار الحـق الحـرقفـــى
توطئة للحصول على درجة الماجستير فى جراحة العظام

مقدمة من الطبيب

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الملخص العربى

يعتبر منظار الحق الحرقفى من الاضافات الجديدة فى مجال جراحات العظام ,وقد تأخر ظهور هذه العملية نظرا لصعوبة الشكل التشريحى لمفصل الحوض بسبب شدة تقعر الحق وتحدب رأس عظمة الفخذ، ولكن وبالتغلب على هذه العقبة عن طريق تطبيق الشد على الطرف السفلى المقصود, بدأ منظار مفصل الحوض فى الأنتشار و أصبحت له دواعى عديدة بين تشخيصية- مثل ألم مفصل الحوض المتعذر تشخيص سببه بالأدوات التشخيصية الأخرى- و علاجية من أهمها الأجسام السائبة داخل المفصل وتمزقات شفة الحق.

وبدأت أول محاولة لعمل منظار الحق الحرقفى على يد العالم بيرمان عام ١٩٣١م والذى استخدم السائل ليتمكن من رؤية ما بداخل مفصل الحق.

وتعتبر أول محاولة فعلية لمنظار الحق بدأت على يد العالم تاكاجى عام ١٩٣٩م.

وهذه المحاولة تكونت من رؤية أربع حالات اثنين منها كانت لمفصل شاركوت وواحدة للالتهاب درنى واخرى لالتهاب صديدى.

وفى عام ١٩٧٠م قام العالم ايجنان بعمل ٥١ حالة مابين منظار تشخيصى وأخذ عينات من مفصل الحق.

فى عام ١٩٧١م قام العالم ريتشارد جروث بوصف اثنين وثلاثين حالة لمفصل الحق كان منها سبعة وعشرون حالة مرضيةلأطفال يعانون من خلع ولادى أو تزحلق لمركز نمو رأس عظمة الفخذ أو مرض بيرسيس.

وفى عام ١٩٨٥م قام العالم توماس سامبسون بتطبيق عملى لمنظار الحق فى الوضع الجانبى للمريض.

فى عام ١٩٨٧م قام العالم ريتشارد فيلر بوضع القواعد الأساسية لعمل مفصل الحق ما بين تشريحية وأكلينيكية.

ثم توالى تتطور المنظار على يد العلماء ماكارثى وكلابر وسيلفر حتى وصل لما عليه الأن.

وتشريحيا يتكون مفصل الحق الحرقفى من مكونات طرفيه ومكونات مركزيه. تتكون المكونات الطرفيه من الجزء الأمامى لعنق الفخذ والجزء الأنسى لرأس عظمة الفخذ والجزء الوحشى لرأس وعنق الفخذ ثم الجزء الخلفى. والمكونات المركزية عبارة عن رأس عظمة الفخذ والحق ورباط تيريز وشفة الحق.

ولعمل منظار الحق الحرقفى يتطلب معرفة المداخل المختلفة لمفصل الحق تم توضيحها بالشرح والرسم وعلاقتها بالبنى القريبة من مفصل الحق والتى من أهمها الأعصاب الطرفية والشرايين القريبة.

ويتم اجراء منظار الحق الحرقفى فى وضعين مختليفين الوضع الجانبى والوضع المسطح مع شد الطرف المراد عمله.

وهناك دواعى عديدة لمنظار الحق منها ازالة الأجسام السائبة، وتمزقات شفة الحق وأصابات الغضاريف والانحشار ما بين رأس عظمة الفخذ والحق.

ومن المضاعفات الموضوعيه التى يمكن حدوثها بعد عملية المنظار منها اصابات الأعصاب الطرفية،تحطم آلة داخل المفصل، واصابة السطح الغضروفى لرأس عظمة الفخذ.

وهناك موانع عديدة لمنظار الحق منها المطلق والنسبى. ومن الموانع المطلقة تيبس مفصل الفخذ، بروز شفة الحق. ومن الموانع النسبيه السمنة المفرطه، وتقرح الجلد حول المفصل.

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Summary

Hip arthroscopy is now becoming established as a standardized orthopedic tool in modern hip surgery and is widely accepted as a treatment modality. To better understand the difficulties during the procedure, chapter one include a detailed description of history of progression of hip arthroscopy and a full account on the arthroscopic anatomy for both peripheral and central compartments of the joint with illustrations, with emphasis on the landmarks important for the orientation and placement of portals. Hip arthroscopy is useful as a diagnostic tool in staging of avascular necrosis of the femoral head. Its use is also justified to diagnose unresolved hip pain when other diagnostic modalities fail to reveal the cause. Hip arthroscopy is superior to other diagnostic modalities in the way that it provides both direct visualization as well as the possibility of therapeutic interference if needed. The indications for therapeutic hip arthroscopy are many and are still increasing. These indications include loose bodies removal and management of labral lesions.On the other hand, the contraindications of hip arthroscopy are few and are almost either relative or non-specific, with the exception of ankylosis of the joint.

Three standard portals have been described and used for the operation. These are the anterior, anterolateral and poster lateral portals. Other portals also have been described with special techniques or for some specific indications. The relationship of the three standard portals to the surrounding important neurovascular structures is very important to the surgeon. It is found that these three standard portals are safe when placed properly with proper use of image intensifier.Hip arthroscopy is performed as an outpatient procedure, and usually under general anesthesia. Epidural anesthesia is an appropriate alternative but requires an adequate

motor block to insure muscle relaxation. The patient is either in supine or lateral decubitus position.For a complete overview of both the central and peripheral part of the hip, traction is necessary for the central part. Arthroscopy with traction allows for a complete evaluation of hip anatomy without scuffing the articular surfaces.

Most of the complications result from traction and fluid management, and are usually preventable. Fortunately, most are not serious and transient in nature with rare permanent damage. Most of the complications occurred early in the surgeon’s experience. Among these, transient neuropraxias occurred most often, mainly pudendal and sciatic, followed by intra-abdominal fluid extravasations

Introduction

Although hip arthroscopy was first introduced by Burman in 1931, it was not a popular treatment option for hip pathology until 1977 when Gross published his experience with arthroscopic treatment of congentally dislocating hips. The arthroscopic technique for the hip in the next 25 years had been much slower than comparable techniques for the knee and shoulder. This is thought to be due to two major factors.First, most hip injuries currently treated with arthroscopy have in the past been Unrecognized and untreated by most doctors. Many of hip problems especially in athletes and young patients were previously unrecognized and thus left untreated, resulting in premature ends to the patients ' competitive careers.Second, limited arthroscopic access to the hip joint has hindered the development of hip arthroscopy, when compared with the knee and shoulder .

Arthroscopy of the hip has become a well established procedure for minimally invasive surgery of hip disorders. Previous studies have shown that non-invasive investigations such as radiography, computed tomography and magnetic resonance imaging provide limited help. Nonoperative treatment is likely to result in persistent symptoms and surgicaloptions for intra-articular hip problems involve open arthrotomy of the hip joint, which carries potential risks associated with joint dislocation.Arthroscopy of the hip joint therefore, seems to be an attractive option. It was once thought that introduction of astraight arthroscope into the ball and socket hip joint was almost impossible.The most common diagnoses that can be treated by hip arthroscopy include labral tears, chondral damage, injury to the ligamentum teres, femoro-acetabular impingement, capsular laxity, avascular necrosis of the hip and loose bodies. Hip arthroscopy may be performed with the patient in either the supine or lateral position. Spcialized long and flexible instruments are used to traverse the thick soft tissues surrounding the hip and to access all joint regions . Several portals have been described including: anterior, anterolateral, distal lateral accessory, and posterolateral portals. Majority of the complications associated with this surgical procedure are related to traction and fluid management. Most complications were local such as chondral or labral injury, broken instruments, neurapraxia and reflex sympathetic dystrophy.

Aim of the work

The aim of this work is to present the indications, techniques and complications of hip arthroscopy as a minimally invasive procedure for management of hip disorders.

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