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شبكة المعلومات الجامعية

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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بعض الوثائق الأصلية تالفة

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بالرسالة صفحات لم ترد بالأصل

Treatment of Chronic Rotator Cuff Impingement of Shoulder joint by Arthroscopic Subacromial Decompression

A thesis submitted for the partial fulfillment of
MD. degree in Orthopaedic Surgery

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Dedication

To :

My father and my mother, who gave me everything good in my life .....

To :

My wife, Who was always behind me with support ....

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Signed

Sherif M.Sokkar

INTRODUCTION

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The shoulder joint plays an integral role in many activities of the daily living, either work or sports[77].

It is responsible for posturing and positioning the hand and upper extremity to do any purpose[66]. That is why the shoulder unit is considerd to be a high mobile dynamic junction between the arm and the trunk[77].

In order to obtain this high mobile property, the bone congruity of the shoulder is minimal, to the extent that the proportion between the head of the humerus and the glenoid is 4:1[77]. This wide range of motion in the presence of this minimal congruity, carries with it the penalty of being potentially unstable joint.[49]

Inorder to improve the stability of the joint,some muscle groups arround it with some ligaments as well, play a very important role in a way of synergism, thus improving of the stability of the joint occurs without disturbing the function needed[77].

It was found that, because of this wide range of motion in the shoulder, which is finally resulted from the interaction between the bony anatomy, and the muscle synergism acting on its five articular units ,a lot of problems -that may influence its function- were detected[8,77]. These problems could arise, either from any pathology affecting one of the five joints of the shoulder girdle, or any pathology affecting the rotator cuff as well[49, 77].

Thus, long time ago many authors[8] had studied these problems and their solution, but the proper description of shoulder problems were not clearly achieved until 1972, when Neer,[70] who was the first to introduce

the concept of impingement lesions of the rotator cuff. In this work Neer could, demonstrate that these impingement lesions could result from repeated mechanical trauma underneath, the antero-inferior border of the acromion and the coraco-acromial arch, and also proposed that the incidence of what is called by impingement syndrome was about 21% . Later Neer with others[74,76] found as well that, this repeated mechanical trauma occurs if only the sub-acromial space is narrow and the patient is doing too much overhead activities.

Many workers[7,8,88] afterwards tried to study the pathomechanics of impingement which was subdivided into: extrinsic factors -which are related to coraco-acromial arch, and the shape of the acromion- and intrinsic factors which are factors related to the rotator cuff itself and its vascular pattern.

The impingement syndrome of the shoulder was found to be one of the most common causes of shoulder pain and dysfunction constituting about 18-20% of all shoulder problems[2, 70, 92].

It was found also that impingement syndrome is not only one of the most common cause of shoulder pain and dysfunction, but also a predisposing factor to progressive cuff tear [77,95]. But the disorders of rotator cuff may occur in all age groups, while the impingement syndrome is more common before the age of 50 years[80].

These facts invite many workers to try different methods to treat this condition, started by open total acromionectomy, lateral acromionectomy and acromioplasty [8]. However, fractures of the acromion, post operative weakness of the deltoid, marked post operative pain and long period of

rehablitation, all stimulated other workers to find out a better solution for the treatment [90,94,98].

The first trial of arthoroscpic sub-acromial decompression was done by Ellman, 1985[23]; Since then this technique has gained favor and become more widely practiced [105].

The better cosmoses, the immediate starting of active range of motion post operatively -since no deltoid detachment,- and the better tolerable post operative pain, all made the early return to sedentary life much easier. Moreover, the great value of athroscopy as a diagnostic technique, gives a better understanding to the glenohumeral, subacromial and rotator cuff pathology [35].

However, arthroscopic results inspite of being successful ,still waving from good to excellent [8, 44,56,86,101].

On the other side, some authors [44,73] had clarified that failure in arthroscopic results had been reported . They proposed that , the most common cause of this post-operative failure, is the inadequate acromial decompression[1,34]. This inadequate decompression was possibly occurred, because the decompression was done subjectively, so that the surgeon depends mainly on the degree of contact between the cuff tendon and the decompressed acromion while doing passive flexion and/or abduction intraoperatively [1] .

It was also found that the true height of the subacromial space in the normal non complaing individual, ranges from 1.3-1.5 cm (between the highest point of the humerus and the inferior surface of the acromion) while the arm at the side of the patient in the erect position [8,26].

This sub-acromial true height is considerably less than that seen in the x-rays - if measured - because of the x-ray' magnification factor[8].

AIM OF THE WORK