بسم الله الرحمن الرحيم

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تم رفع هذه الرسالة بواسطة / سامية زكى يوسف

بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

ملاحظات: لا يوجد

Effect of Previous Hip Arthroscopy on Results after Hip Arthroplasty:

Systematic Review and Meta-Analysis

For Partial Fulfillment of Master Degree
in **Orthopedic Surgery**

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Gerges Salah Moris Georgeos

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List of Abbreviations

Abb.	Full term
AIDS	*Acquired Immunodeficiency Syndrome*
AIIS	*Anterior Inferior Iliac Spine*
AP	*Anteroposterior*
ASIS	*Anterior Superior Iliac Spine*
BMI	*Body Mass Index*
CC	*Central Compartment*
CENTRAL	*Cochrane Central Register of Controlled Trials*
CI	*Confidence interval*
CT	*Computed Tomography*
DALA	*Distal Anterolateral Accessory portal*
FAI	*Femoroacetabular impingement*
GTPS	*Greater Trochanter Pain Syndrome*
HA	*Hydroxyapatite*
HAD	*Hospital Anxiety and Depression*
HHC	*High Hip Center*
HSS	*Harris hip score*
ITB	*Iliotibial Band*
LCE	*Lateral Central Edge Angle*
LFCA	*Lateral Femoral Cutaneous Artery*
LFCN	*Lateral Femoral Cutaneous Nerve*
LTP	*Lateral Trochanteric Pain*
MD	*Mean difference*
MFCN	*Medial Femoral Circumflex Artery*
MRI	*Magnetic resonance Imaging*
PAO	*Periacetabular Osteotomy*

List of Abbreviations (Cont....)

Abb.	Full term
PC	*Peripheral Compartment*
PMMA	*Polymethylmethacrylate*
PSIS	*Posterior Superior Iliac Spine*
RF	*Radiofrequency*
ROM	*Range of Motion*
RR	*Relative risk*
SD	*Standard deviation*
SMD	*Standardized mean difference*
TAL	*Transverse Acetabular Ligament*
TFL	*Tensor Fascia Lata*
THA	*Total Hip Arthroplasty*
THR	*Total Hip Replacement*
WOMAC	*Western Ontario McMaster Universities Osteoarthritis Index*

INTRODUCTION

In diagnosing and treating several early-arthritic and pre-arthritic hip problems, hip arthroscopy has developed to be a well-accepted technique. [1] It is safe and efficient in treating femoroacetabular impingement and labral tears as it was proven, while it expands to cover other indications like intra-articular and extra-articular pathologies. [2–4] Hip arthroscopy's incidence has risen dramatically over the past decade. In the United States, the growth was 365%, between 2004 and 2009 [5], and 250%, between 2007 and 2011 [6]. While in the United Kingdom, there was a 727% expansion in the number of hip arthroscopic procedures between 2002 and 2013. [7] On the contrary, a significant proportion of patients, will eventually demand conversion to hip arthroplasty as high as 36% at ten years. [8–10] Considering the increasing incidence of hip arthroscopy, extra patients who have had prior hip arthroscopy will require conversion to hip arthroplasty. Therefore, the imminent requirement for suitable postoperative sequels reinforces the significance of determining the connection between preceding arthroscopy and future hip arthroplasty.[9]

Regarding total knee arthroplasty, there is some evidence that previous knee arthroscopy has some adverse effect on the clinical outcome after total knee arthroplasty. [11–13] Nevertheless, most studies have proposed that prior hip arthroscopy does not appear to impact the complications,

revisions, and patient-reported subsequent hip arthroplasty outcomes in hip literature. [14–17] A few studies reported lower functional results [18] or increased complications [19] after conversion hip arthroplasty. However, these studies are few and have small cohort sample sizes. Concerning the lack of available data and insufficient strength, the effect of prior hip arthroscopy on hip arthroplasty outcomes remains unclear.

This study aims to systematically review the current evidence in the literature to establish whether previous hip arthroscopy would cause inferior outcomes in patients undergoing succeeding hip arthroplasty.

Aim of the Work

This review pursues to systematically review the current evidence in the literature to determine whether previous hip arthroscopy would direct to affect results in patients undergoing succeeding hip arthroplasty.

REVIEW OF LITERATURE

Total Hip Arthroplasty

Applied Anatomy of the Hip

Operations on the hip joint through several surgical approaches are among the most common surgical procedures being performed in orthopedics. Hip arthroplasty is the most frequently performed adult reconstructive hip procedure. Millions of patients with degenerative hip joint disease achieve significant improvement in their functional status and quality of life by hip replacement. In 2003, a total of 202,500 primary total hip arthroplasties (THAs) were performed nationally in the United States.[20]

Bone Anatomy

Os Coxa and Acetabulum

The acetabular surface is oriented approximately 45 degrees caudally and 15 degrees anteriorly. It has predominantly a circular contour and a hemispherical depth to allow 170-degree coverage of the femoral head. The labrum serves to augment the femoral head coverage, thereby increasing the depth and stability of the hip joint.[21]

The transverse acetabular ligament (TAL) is effectively the continuation of the labrum and forms a bridge across the inferior acetabular notch. (Fig. 1) even when minimally invasive methods are being used. It defines the anteversion of

the acetabular component without the need for external instrumentation and is independent of patient position.[22]

An anterior and posterior osseous column of bone surrounds the acetabulum and functions to transmit force between the trunk and lower extremities. If pelvic discontinuity is suspected, a computed tomography (CT) scan should be performed.[23]

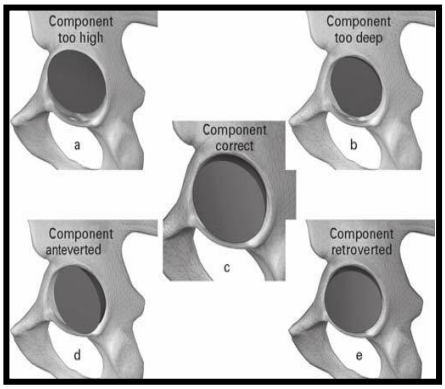

Figure (1): The position of the acetabular component in relation to transverse acetabular ligament: (a) high, (b) deep, (c) correct height, depth, and version, (d) Correct height and depth but anteverted, and (e) correct height and depth but retroverted.

Femur

The head of the femur articulates at the acetabulum and is positioned anteriorly, superiorly, and medially. The femoral neck is typically angled 125 degrees to the shaft and the center of the femoral head is at the level of the lateral aspect of the greater trochanter. The distance between the center of the femoral head and the lateral aspect of the greater trochanter can vary independent of the neck-shaft angle. [24]