

Csípőízületi hátsó feltárás – miért jobb?

Sisák Krisztián

SZTE Ortopédiai Klinika

MOT Protézis Kerekasztal - 2022.11.26 – Budapest, OGGYK



- 1950 JBJS
 - „gyors, szinte vértelen feltárás”
 - „az izmok ereje változatlan marad”
 - „könnyű, effektív”

POSTERIOR EXPOSURE OF THE HIP JOINT

ALEXANDER GIBSON, WINNIPEG, CANADA

Director, Department of Orthopaedic Surgery, Deer Lodge Hospital, Winnipeg

So much attention has been focused in recent years upon the anterior approach to the hip joint that the advantages of the posterior approach have been ignored almost entirely and many surgeons have no experience of it. The descriptions given in some standard text-books are incomplete or even inaccurate. Moreover, the impression is prevalent that haemorrhage during the operation may be troublesome. This view cannot possibly be entertained by anyone who is familiar with the procedure. A few small vessels may have to be clamped, but it is seldom necessary to apply a ligature.

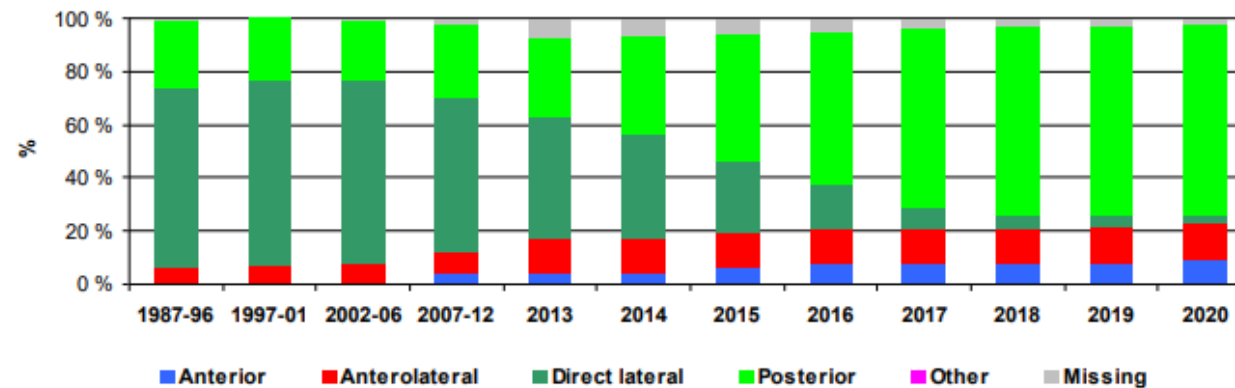
To anyone who is not well acquainted with the anatomy of the buttock the description of the operation may sound complicated; but in reality the anatomical simplicity is most striking. The earliest account of a posterior exposure is that of von Langenbeck (1874). The patient was laid upon the sound side with the affected hip flexed 45 degrees, a position in which the axis of the thigh corresponds approximately with a line joining the greater trochanter with the posterior superior iliac spine. The incision began in this line.

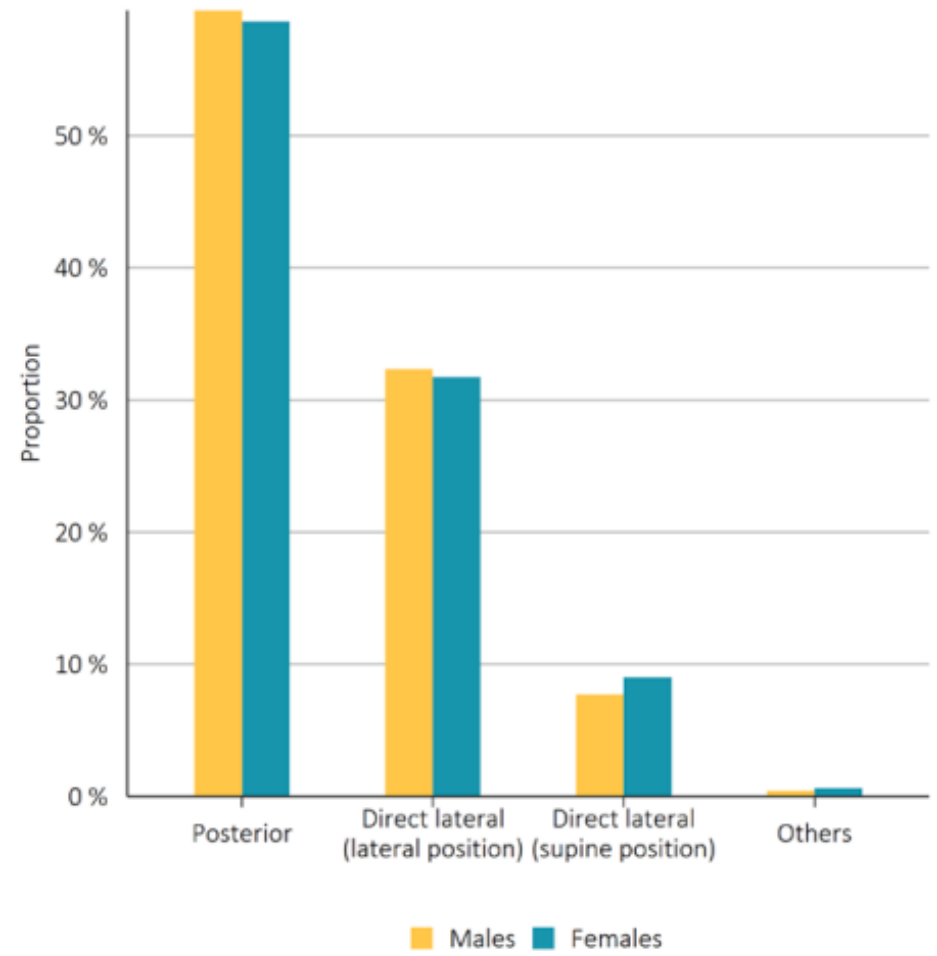
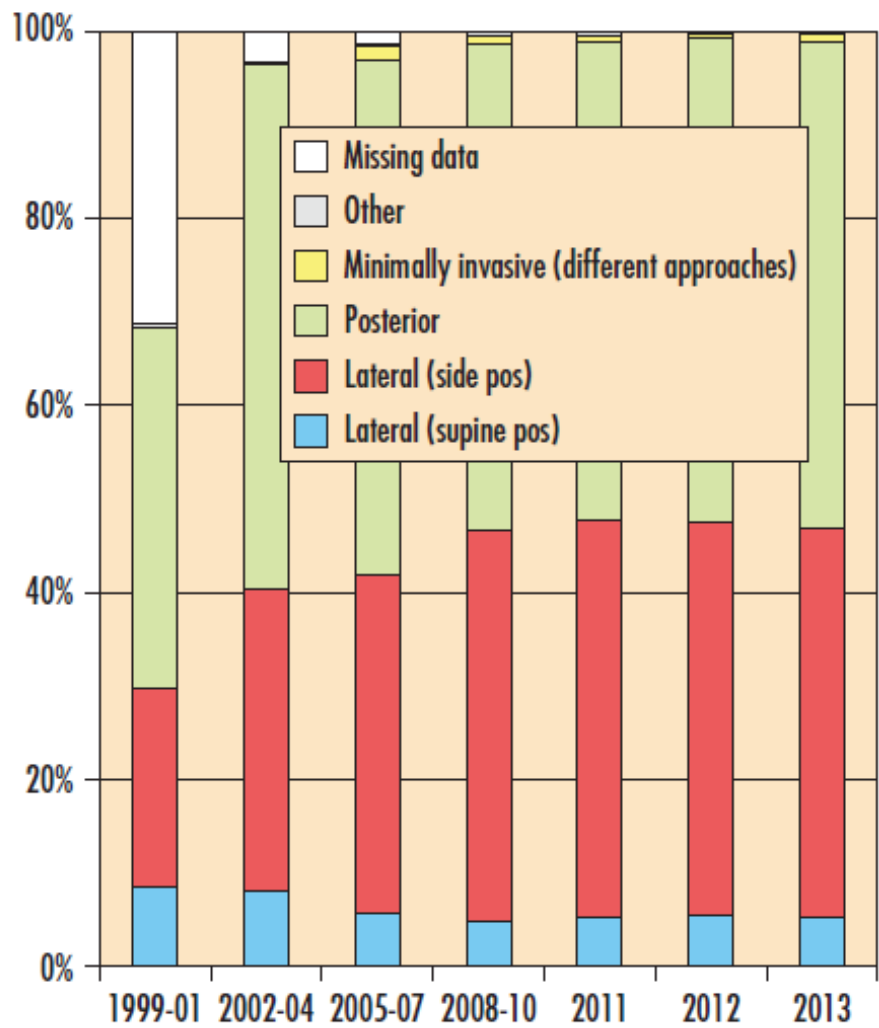


- „talán nem túlzás azt állítani, hogy a csípőízület feltárásához, a hátsó feltárás ‘facile princeps’,”
 - facile princeps – könnyedén a legjobb/könnyedén a legelső

Anterior		Anterolateral		Direct lateral		Posterior	
797	(9,3 %)	1 168	(13,7 %)	226	(2,6 %)	6 151	(72 %)
754	(7,6 %)	1 422	(14,2 %)	407	(4,1 %)	7 095	(71,1 %)
765	(8 %)	1 249	(13 %)	464	(4,8 %)	6 801	(70,8 %)
713	(7,8 %)	1 170	(12,8 %)	753	(8,2 %)	6 177	(67,3 %)
718	(8 %)	1 165	(13 %)	1 437	(16 %)	5 170	(57,7 %)
521	(6,2 %)	1 147	(13,6 %)	2 235	(26,4 %)	4 087	(48,4 %)

Figure 6: In primary operations *





Copyright © 2021 Swedish Arthroplasty Register

Figure 5.1.1. Distribution of surgical approach, sex.



	No.	%
Total hip primaries	79,978	
Patient position		
Lateral	75,232	94%
Supine	4,746	6%
Incision		
Posterior	51,580	64%
Lateral (inc. Hardinge)	24,715	31%
Trochanteric Osteotomy	220	<1%
Other	3,463	4%

2013



2021

	No.	%
Total hip primaries	89,634	
Patient position		
Lateral	87,060	97%
Supine	2,574	3%
Incision		
Posterior	71,584	80%
Hardinge/Anterolateral	15,845	18%
Direct Anterior	932	1%
Trochanteric Osteotomy	75	<1%
Other	1,198	1%

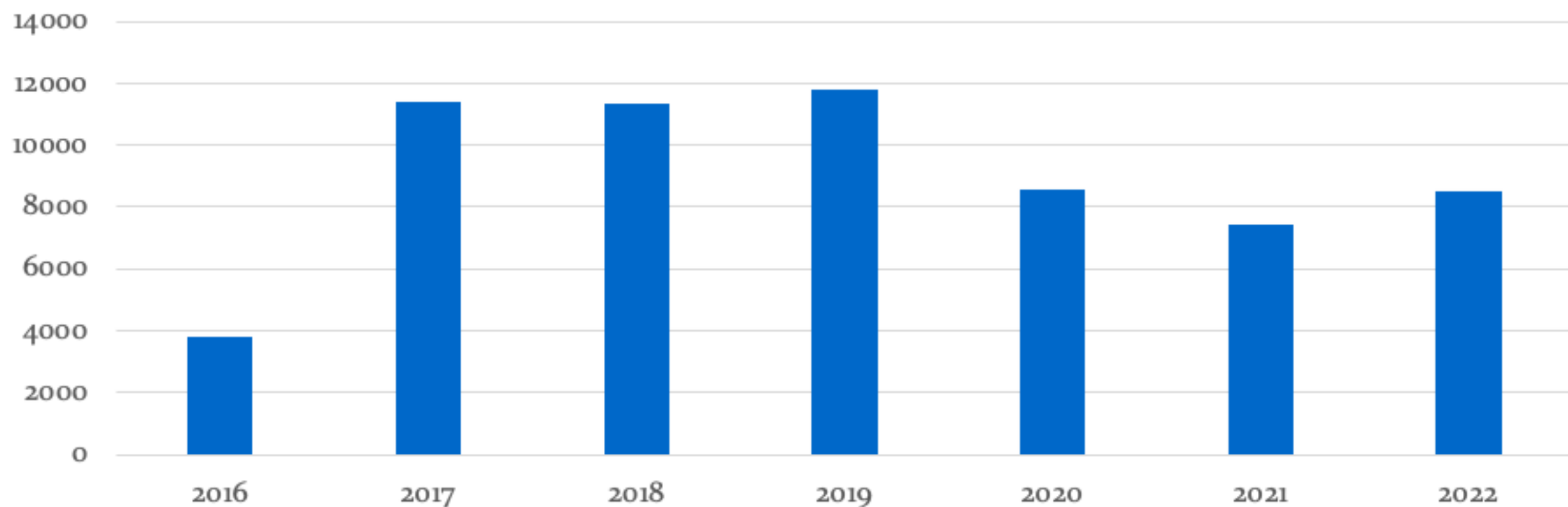


Table HT63 Primary Total Conventional Hip Replacement by Age and Surgical Approach (Primary Diagnosis OA)

Age	Anterior		Lateral		Posterior	
	N	CoI%	N	CoI%	N	CoI%
<55	7741	12.4	3491	10.2	12787	10.4
55-64	16260	26.0	7899	23.0	28693	23.4
65-74	22839	36.6	12540	36.5	44407	36.2
≥75	15580	25.0	10398	30.3	36755	30.0
TOTAL	62420	100.0	34328	100.0	122642	100.0



PRIMER CSÍPÖPROTÉZIS BEÜLTETÉS (NPR501)
MŰTÉTEK SZÁMA
(2016.06-2022.10)



FELTÁRÁS	2016	2017	2018	2019	2020	2021	2022
Nincs kitöltve	15	78	77	15	20	63	188
anterior	359	1124	1420	1598	1212	1593	1476
antero-lateralis	2044	5969	5616	5293	3554	3165	3082
lateralis	1316	4032	4003	4524	3426	2244	3300
posterior	53	177	212	389	323	366	457
ÖSSZES MŰTÉT	3787	11380	11328	11819	8535	7431	8503

2013



2022

- Zah
- Heg
- Bár
- Bál
- Bat
- Zor
- Hor
- Czi
- Hor
- Ján
- Sis
- Ara
- Go
- Sze
- Ho



A string of four white cards with black text "TOP 10" hanging against a background of warm bokeh lights. The cards are held together by four wooden clothespins on a thin, light-colored string. The background is dark with numerous out-of-focus circular lights in shades of yellow, orange, and red, creating a festive atmosphere. The cards are slightly tilted and overlap each other.

T **O** **P** **10**

1 Stabilitás

- protézis ficam:

- történelmi adatok:

- Lateralis << Hát (nékül)

- hátsó tok és kirotár

- Lateralis ≥ Hát
- Kumar et al. 2014 BJJ: using a 22 mm diameter femoral head
 - 0.78% ficam arány

- biomechanika pontosság

- femorális offset
- a humán offset range-t job

- nagyobb fejek (32-36)



placement through a posterior approach using a 22 mm diameter femoral head

THE ROLE OF THE TRANSVERSE ACETABULAR LIGAMENT AND CAPSULAR REPAIR IN REDUCING THE RATE OF DISLOCATION

V. Kumar,
S. Sharma,
J. James,
J. P. Hodgkinson,
M.V. Hemmady

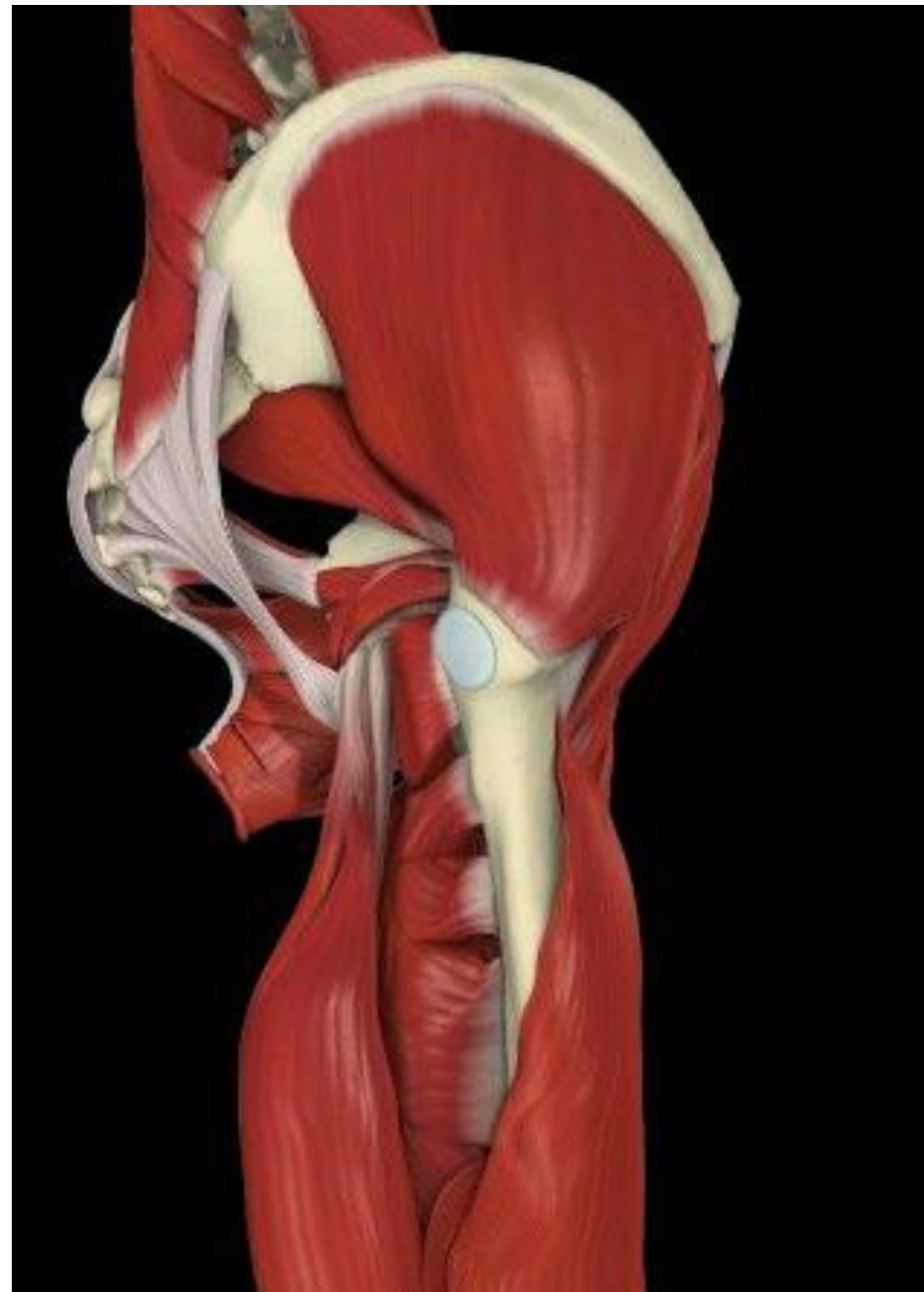
From Wrightington
Hospital, Lancashire,
United Kingdom

Despite a lack of long-term follow-up, there is an increasing trend towards using femoral heads of large diameter in total hip replacement (THR), partly because of the perceived advantage of lower rates of dislocation. However, increasing the size of the femoral head is not the only way to reduce the rate of dislocation; optimal alignment of the components and repair of the posterior capsule could achieve a similar effect.

In this prospective study of 512 cemented unilateral THRs (Male:Female 230:282) performed between 2004 and 2011, we aimed to determine the rate of dislocation in patients who received a 22 mm head on a 9/10 Morse taper through a posterior approach with capsular repair and using the transverse acetabular ligament (TAL) as a guide for the alignment of the acetabular component. The mean age of the patients at operation was 67 years (65-82). The mean follow-up was 20 months (15-24). Dislocation occurred in 10 patients (1.9%).

2. Abductorok

- Trendelenburg+:
 - lateralis feltárás
 - legalább 2x olyan gyakori
 - átlagosan 4% (laterális feltárás)
 - Berstock et al.
 - Ann R Coll Surg Engl. 2015 Jan . A systematic review and meta-analysis of complications following the posterior and lateral surgical approaches to total hip arthroplasty.
 - abductor dehiscencia – kezelés??
 - LARS graft



3. Vérzés, transfúzió

- ?
- Parvazi et al.
 - Int Orthop 2013.
 - Does the surgical approach in one stage bilateral total hip arthroplasty affect blood loss?
 - Anterior << Lateralis
- Higgins et al.
 - J Arthroplasty (2014).
 - Anterior vs. posterior approach for total hip arthroplasty, a systematic review and meta-analysis. J Arthroplasty (2014).
 - Posterior < Anterior



International Orthopaedics (SICOT) (2013) 37:2357–2362
DOI 10.1007/s00264-013-2093-0

ORIGINAL PAPER

Does the surgical approach in one stage bilateral total hip arthroplasty affect blood loss?

Javad Parvizi · Mohammad R. Rasouli · Mehrad Jaber · Guillaume Chevrolier · Scott Vizzi · Peter F. Sharkey · William J. Hozack

Received: 10 July 2013 / Accepted: 19 August 2013 / Published online: 26 September 2013
© Springer-Verlag Berlin Heidelberg 2013

Abstract

Purpose It is not clear whether type of surgical approach affects the amount of blood loss in one-stage bilateral total hip arthroplasty (THA). This study therefore aims to examine if type of surgical approach can affect peri-operative blood

Conclusions Our results may be explained by the lower extent of muscular dissection performed in the DA approach. Our findings also indicate that intra-operative cell salvage might not be justified in bilateral THA performed expeditiously.

The Journal of Arthroplasty xxx (2014) xxx–xxx



ELSEVIER

Contents lists available at ScienceDirect

The Journal of Arthroplasty

journal homepage: www.arthroplastyjournal.org



Anterior vs. Posterior Approach for Total Hip Arthroplasty, a Systematic Review and Meta-analysis

Brendan T. Higgins, MD, MS^{a,b}, Daniel R. Barlow, MS^{b,c}, Nathan E. Heagerty, MPH^b, Tim J. Lin, MD, MS^{a,b}

^a Department of Orthopaedic Surgery, Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire

^b The Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, New Hampshire

^c Geisel School of Medicine at Dartmouth, Hanover, New Hampshire

ARTICLE INFO

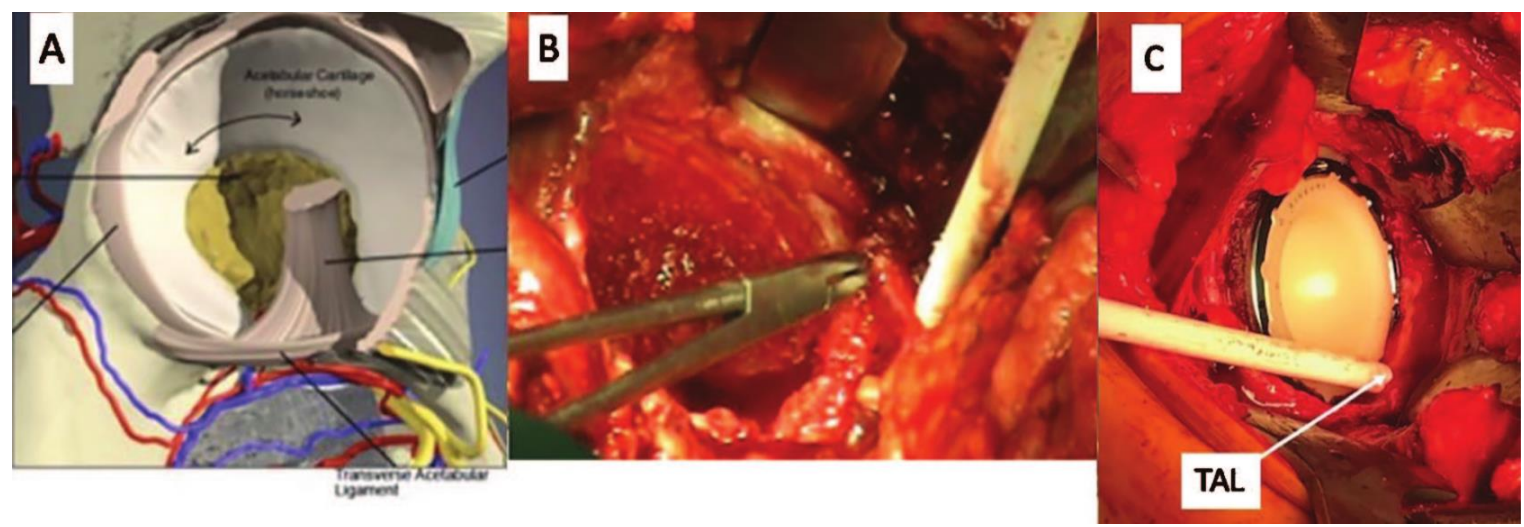
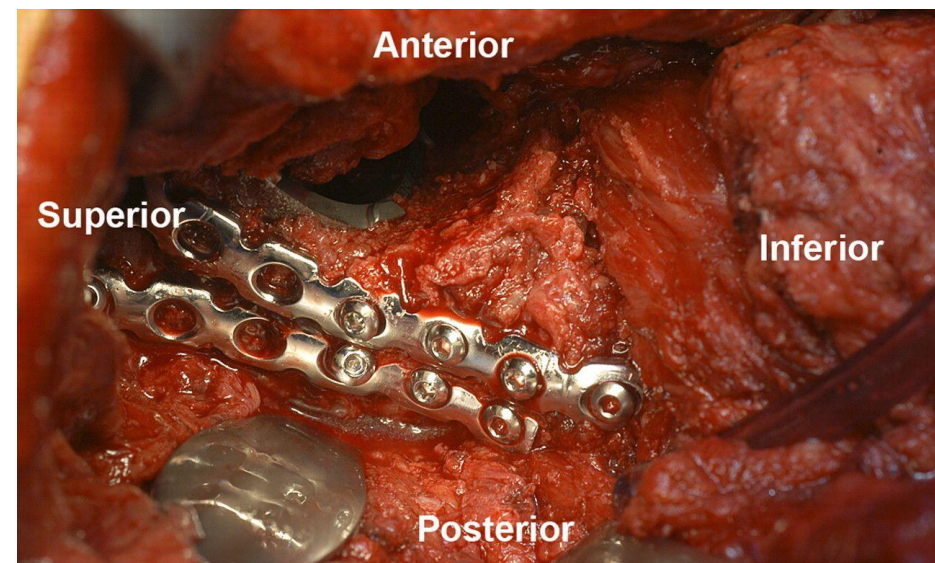
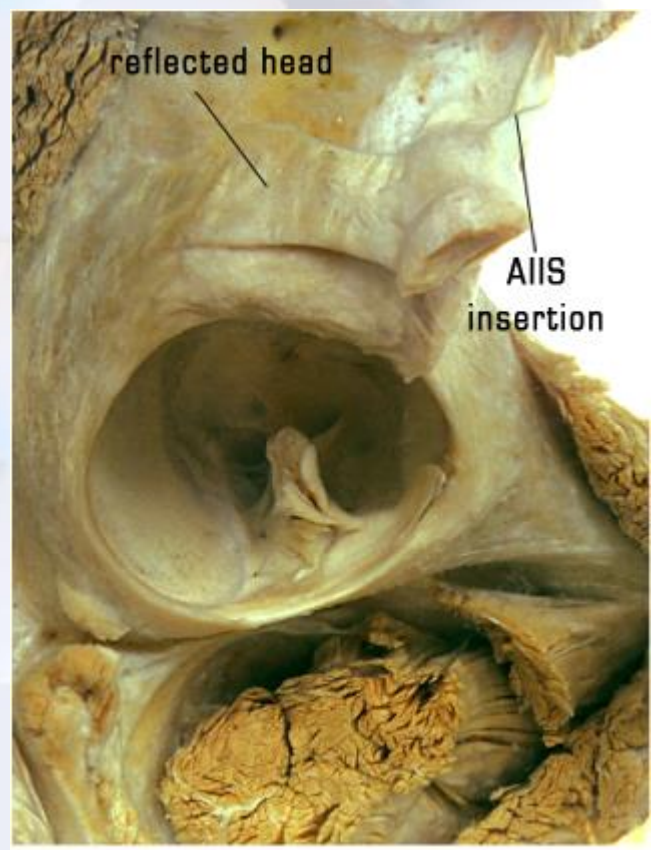
Article history:
Received 26 August 2014
Accepted 13 October 2014
Available online xxx

Keywords:

ABSTRACT

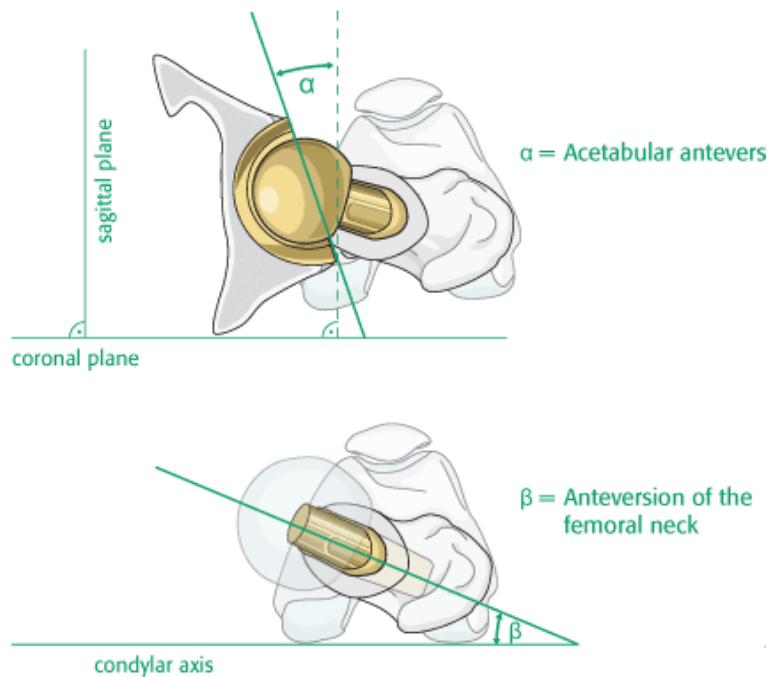
The objective of this study is to compare the clinical, radiographic and surgical outcomes among patients undergoing primary THA performed via the anterior versus posterior approach. We searched numerous sources and eventually included 17 studies, totaling 2302 participants. In terms of post-operative pain and function, the anterior approach was significantly favored in 4 studies at short-term follow-up. Pooled estimates showed a significant difference in favor of the anterior approach in terms of length of stay and dislocations. Current evidence regarding outcomes following anterior versus posterior THA does not demonstrate clear superiority of either

4. Feltárás – acetabulum TAL

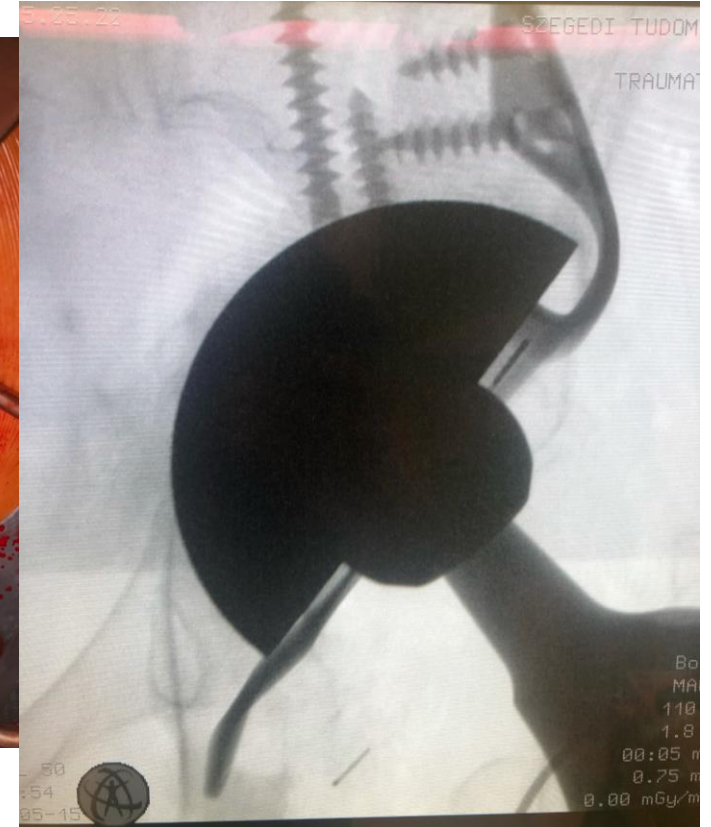
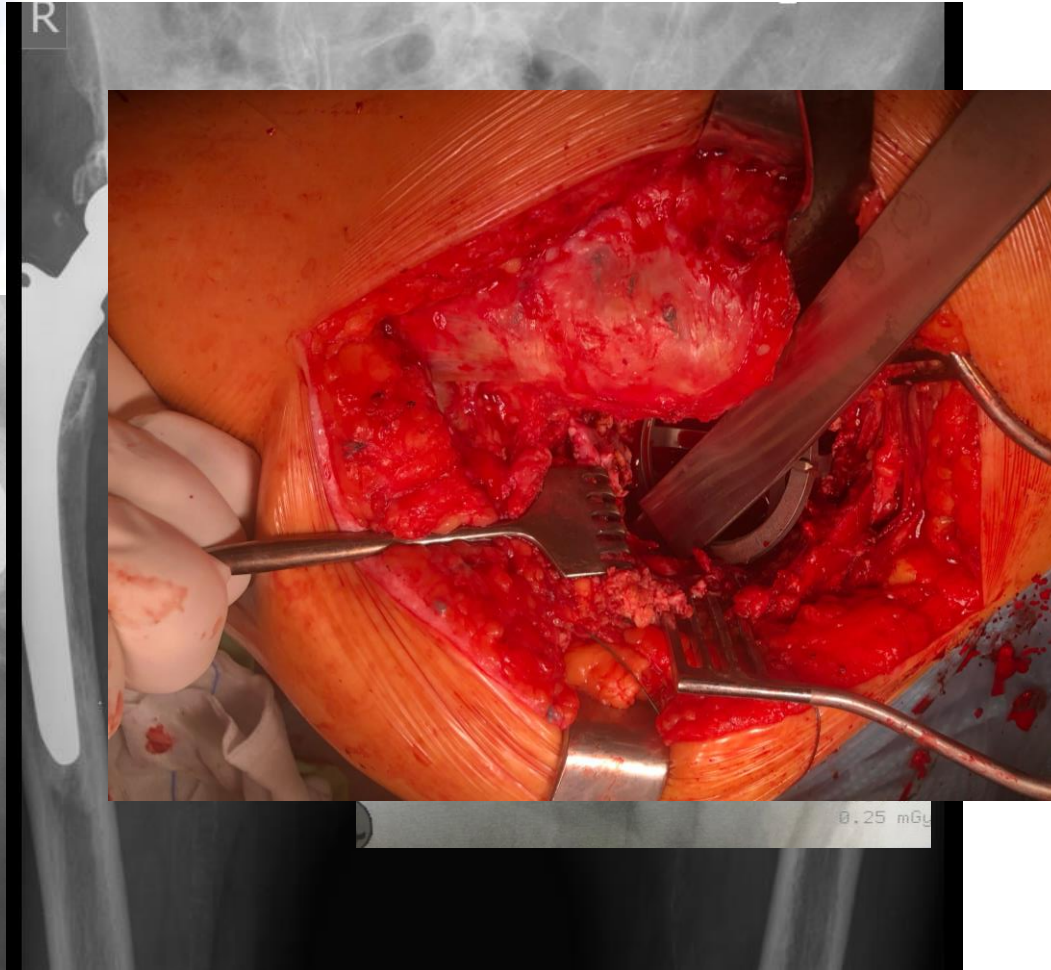


5. Komponens orientáció - acetabulum

- anatómiai kombinált anteverzión
 - 30-35 fok
- 'safe zone' - stabilitás
 - Hátsó feltárás: 25-50 fok
 - Laterális feltárás: 10-25 fok
- retrovertált vápa:
 - iliopsoas impingement
- Dorr et al. CORR 2009
- a vápa a „természetes” helyére kerül

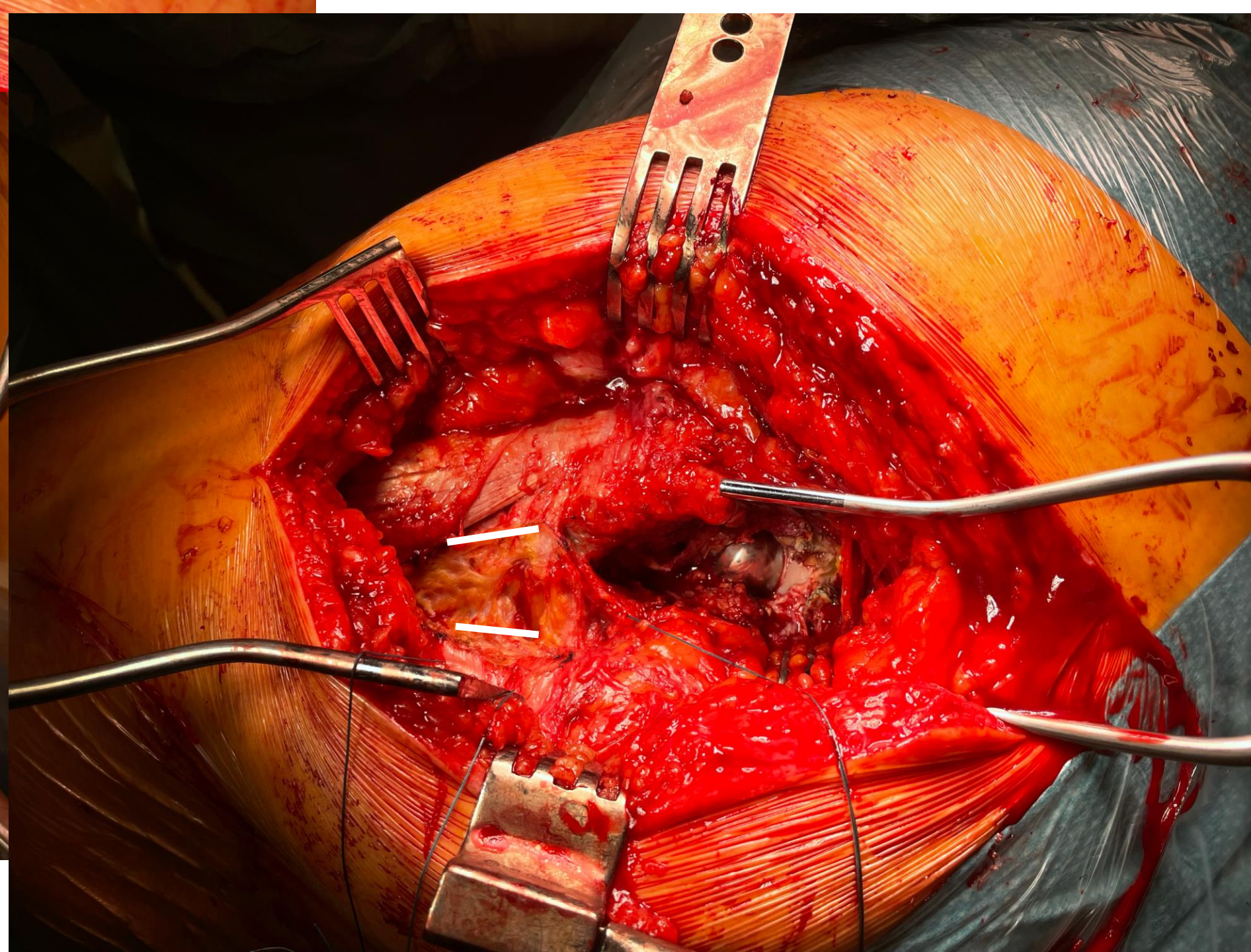
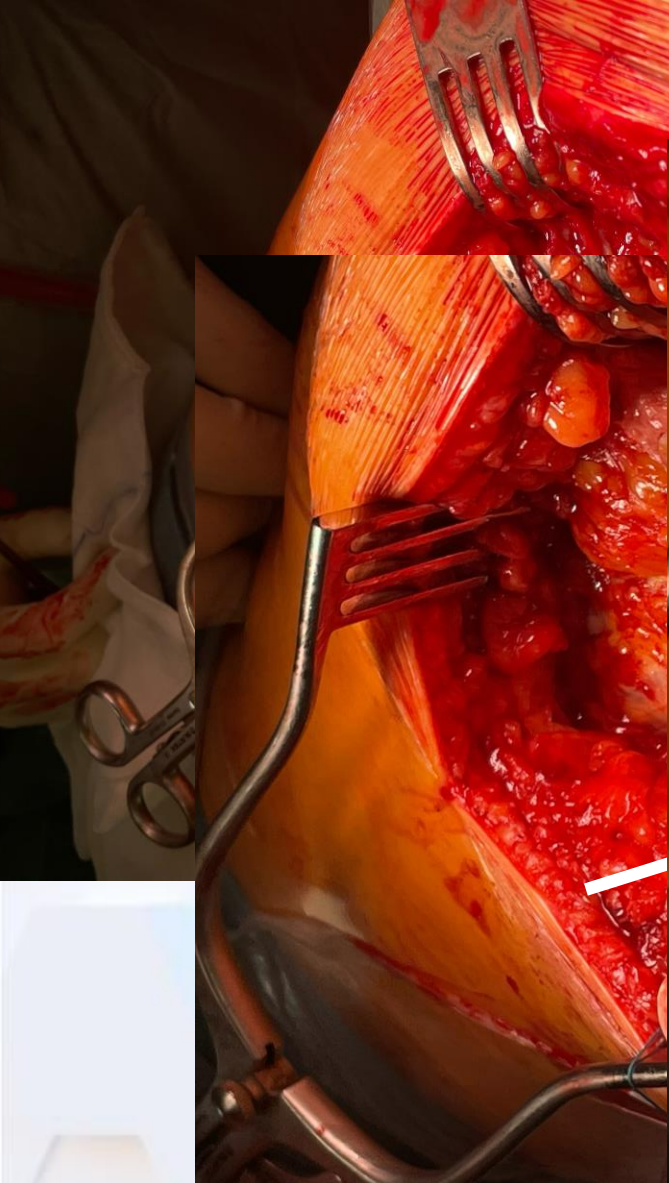


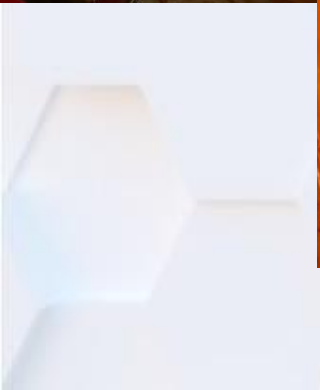
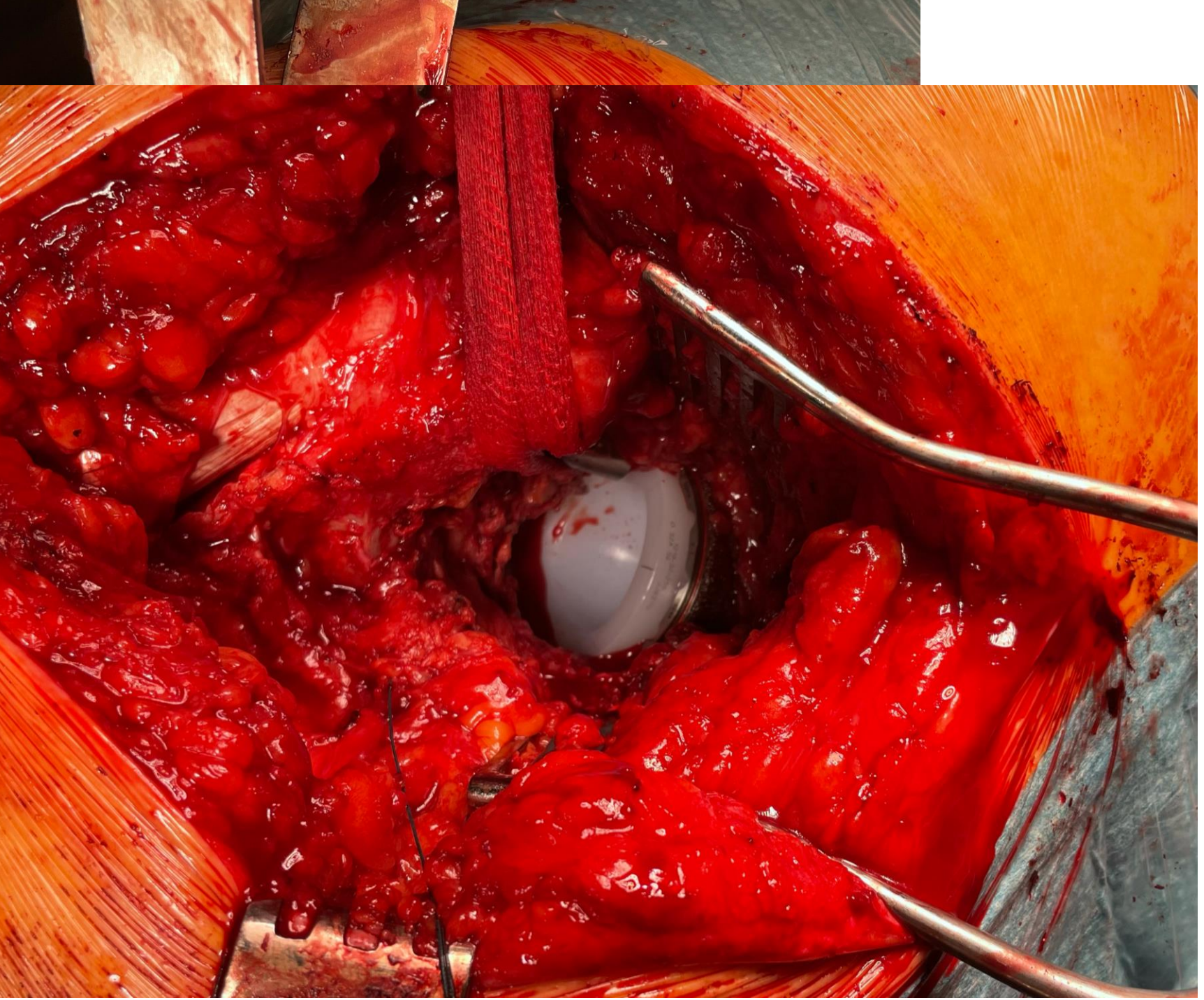
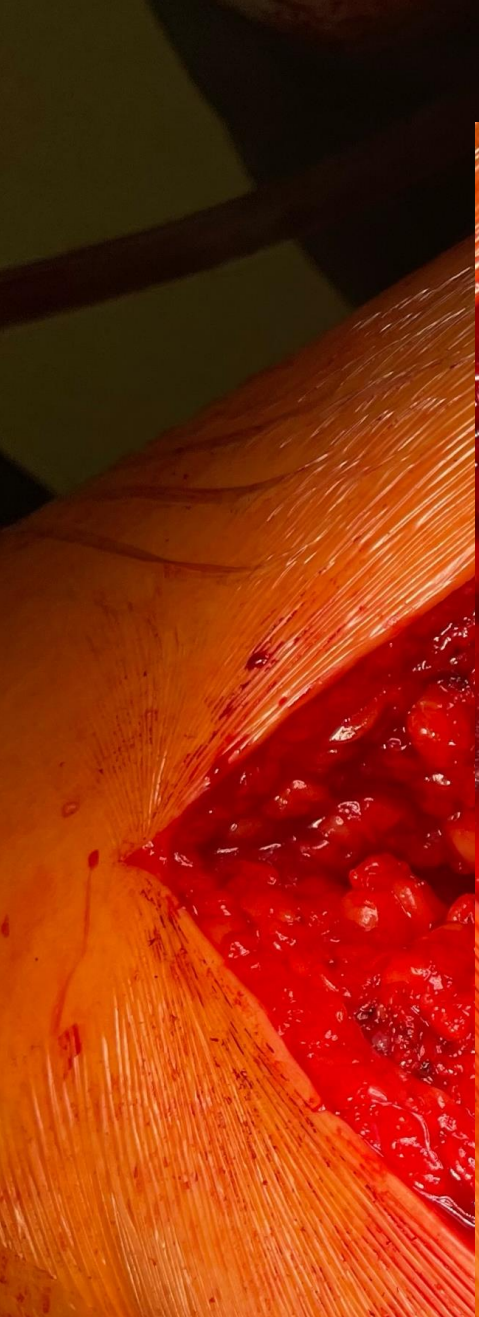
6. Feltárás kiterjesztése - acetabulum



Izolált vápacsere



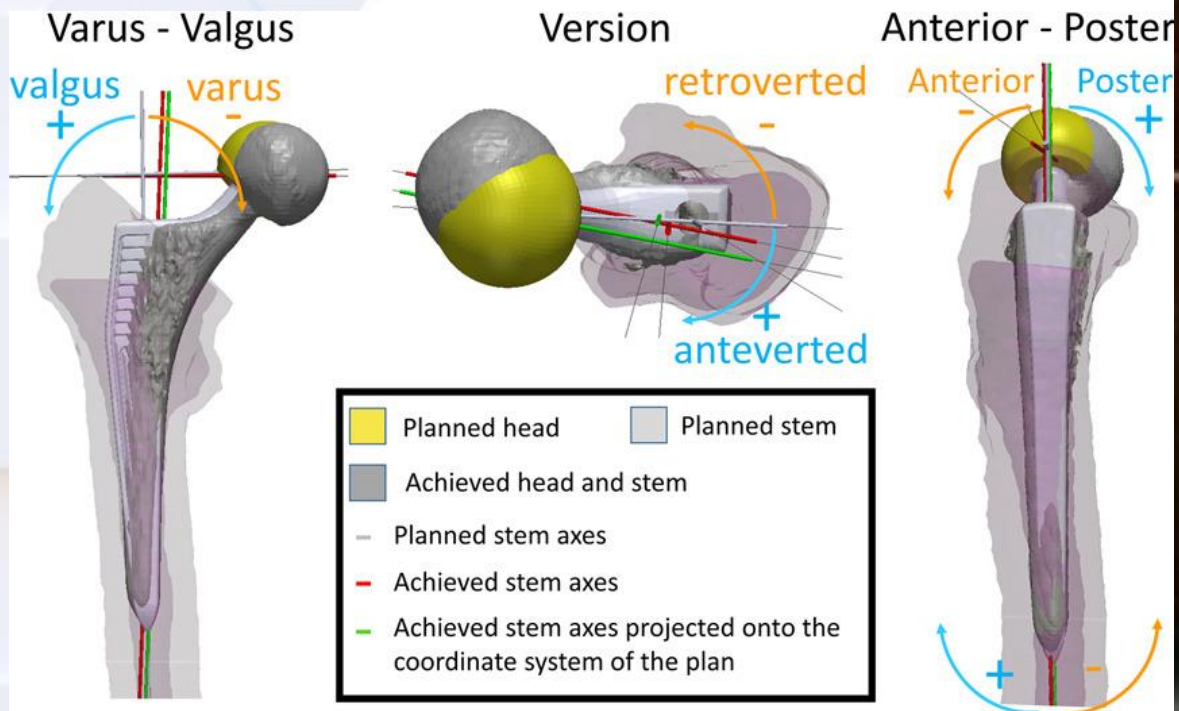






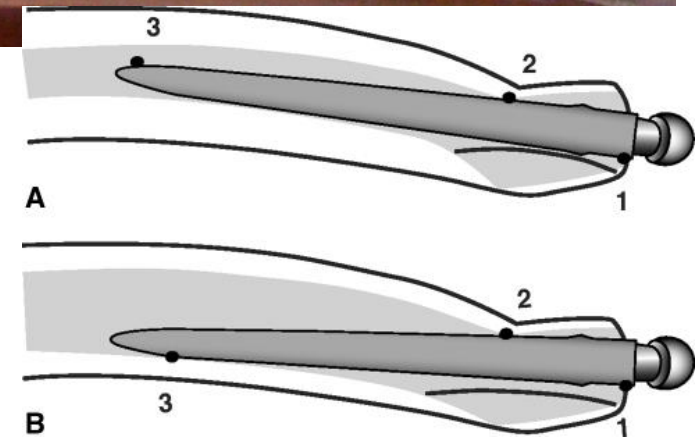
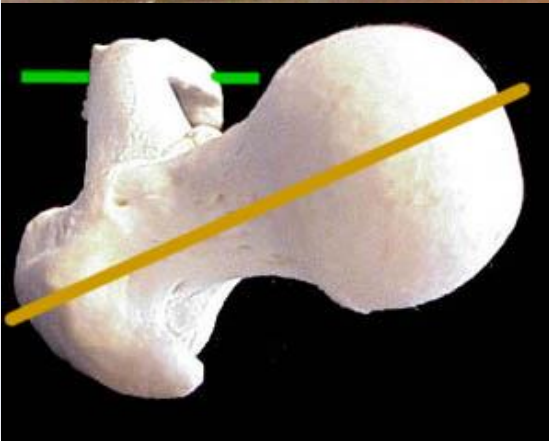
7. Komponenten d

- „entry point“
 - posterior
 - tengely



8. Femorális komponens irány és méretezés

- antecurvatum
- a nyak és a diaphysis tengelye nem ugyanaz!
- szár malpozíció



9. Feltárás kiterjesztése – femur



10. Reprodukálhatóság

- anatómiai fix pontok jól láthatóak
- komponens orientáció
 - acetabulum
 - femur
- kevés az „outlier”



+1. Learning curve

- jól tanítható
- jobban felügyelhető/asszisztálható
- rövidebb learning curve
- műtét tervezés



Összefoglalás

- csináld azt amihez értesz, de ne állapodj meg a laterális feltárásnál, ha nem vagy vele megelégedve
- ha egy vegyes patológiával és komplexitással rendelkező betegcsoportot kezelsz akkor a hátsó feltárás mindenre jó
 - kiterjeszhető
 - nehéz primer műtét
 - protrusio, rövidülés, magas BMI, resurfacing, 'stiff hip'
 - revízió
 - periprotetikus törés
- hátsó feltárás esetén NEM gyakoribb a ficam, és nincs Trendelenburg + beteg

The First Rule Of Orthopaedics

- 1. Don't Fuck Up!
- 1. Feel free to cope
- 1. Thou shalt not commit Varus
- 1. All bleeding stops eventually
- 1. Get to bone safely, and stay there
- 1. Change the list, less an hour
- 1. Plastics is a technique not a speciality
- 1. Don't give excuses, get results
- 1. Don't be sorry, be better
- 1. If you're not 10 minutes early, you are late
- 1. A bigger mallet is not always a substitute for good surgical technique
- 1. Anything less than size 8 is for nurses
- 1. Nothing ruins a good surgical result quicker than follow-up
- 1. The enemy of good is better
- 1. The R in ORIF is critical
- 1. You can't unfuck something by fucking it harder
 - a). You have to fuck it tenderly, the way it should've been fucked the first time
- 1. There is always more meniscus to resect
- 1. If you sit down to operate you will sit down to pee
- 1. Orthopaedic wives and scrub nurses are natural enemies
- 1. It is always easier to get forgiveness than permission
- 1. New is not always better
- 1. Without a foot you can't have foot problems
- 1. Real hip surgeons do it from behind
- 1. No-one looks good taking out hardware
- 1. Don't stick your dick in crazy (guideline)
- 1. Don't shit where you eat (guideline)
- 1. Trust no-one, check everything twice, extreme paranoia should be your normal state of mind
- 1. If you ask for an instrument, you better put some blood on it before handing it back
- 1. Holes in plates are an opportunity, not an obligation
- 1. Before you try and be funny, be competent
- 1. Wounds heal side to side, not end to end. The road to hell is paved with small incisions
- 1. There is nothing worse than a Nut with pathology
- 1. He who knows no anatomy knows no fear
- 1. 2 raytec in the acetabulum, 2 screws for the syndesmosis, 2 fingers of scotch.
Because 1 isn't enough and 3 is too many
- 1. If you just don't understand what's wrong with these fuckers, then crack on

„Real hip surgeons do it
from behind”

DAA vs. PA (15 RCTs)

- nincs különbség
 - korházi tartózkodás, 8 PROMs
- előnyök – anterior
 - HHS – 6 hét, ficam
- előnyök – posterior
 - műtéti idő, PJI, vérvesztés, nincs NCFL neurapraxia

National Institute for Health and Care
Excellence

Final

Joint replacement (primary): hip, knee and shoulder

[M] Evidence review for hip replacement
approach

NICE guideline NG157

*Intervention evidence review underpinning
recommendation 1.8.1 and the research recommendation
in the NICE guideline*

March 2020



Contents lists available at ScienceDirect

Orthopaedics & Traumatology: Surgery & Research

journal homepage: www.elsevier.com



Original article

Comparative MRI assessment of three minimally invasive approaches in total hip arthroplasty

Matthieu Lalevée^{a,*}, Jonathan Curado^a, Jean Matsoukis^b, Julien Beldame^{c,d}, Helena Brunel^e, Stéphane Van Driessche^f, Fabien Billuart^{e,g}

^a Centre Hospitalier Universitaire de Rouen, Service de Chirurgie Orthopédique et Traumatologique, 37, boulevard Gambetta, 76000 Rouen, France
^b Département de Chirurgie Orthopédique, Groupe Hospitalier du Havre, BP 24, 76083 Le Havre cedex, France
^c Institut Clinique du Pied-Paris, Ramsay Santé, Clinique Blomet, 136, rue Blomet, 75015 Paris, France
^d Clinique Mégival, 1328, avenue de la Maison-Blanche, 76550 Saint-Aubin-sur-Scie, France
^e Laboratoire d'Analyse du Mouvement, Institut de Formation en Masso-kinésithérapie Saint-Michel, France
^f Clinique de Montargis, 46, rue de la Quintaine, 45200 Montargis, France
^g Université Paris-Saclay, UVSQ, Erphan, 78000 Versailles, France

M. Lalevée, J. Curado, J. Matsoukis et al.

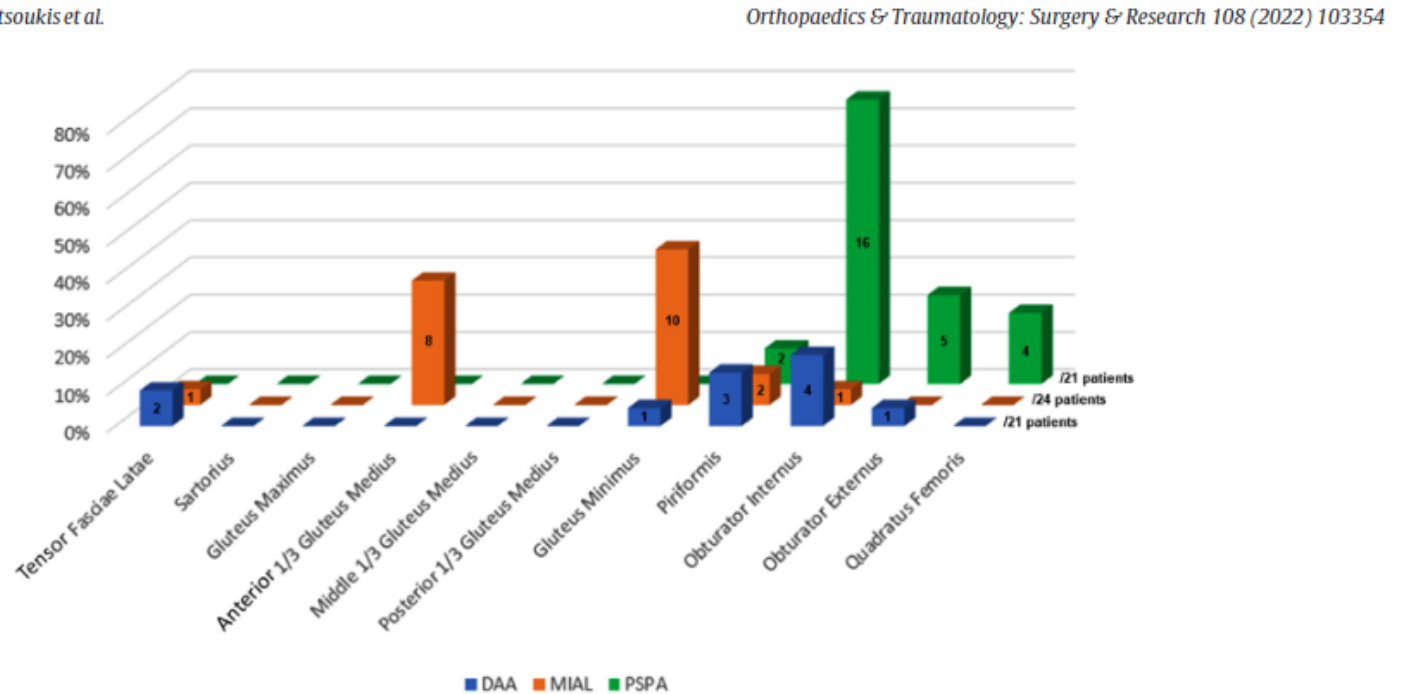
ARTICLE INFO

Article history:
 Received 13 January 2022
 Accepted 22 April 2022

Keywords:
 Fatty infiltration
 MRI
 Hip arthroplasty
 Minimally invasive

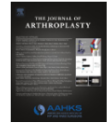
ABSTRACT

Introduction: Minimally invasive approaches (lateral: MIAL; piriformis-sparing posterior: THA), with a muscle-sparing objective secondary to these approaches. The aim was to assess the fatty infiltration (FI) induced by DAA, MIAL and PSPA in the gluteal muscles, and 3) in the pelvic muscles.
Hypothesis: Greater FI is induced by the minimally invasive approaches.



Orthopaedics & Traumatology: Surgery & Research 108 (2022) 103354

- ≈1000 ortopéd sebész
 - 56% végzi
- Mikor nem DAA
 - 79% - revízió
 - 65% - komplex anatómia
 - 53% - „testalkat”



Primary Arthroplasty

Current Trends in Clinical Practice for the Direct Anterior Approach Total Hip Arthroplasty



Nick N. Patel, MD^{*}, Jason A. Shah, BS, Greg A. Erens, MD

Department of Orthopaedic Surgery, Emory University School of Medicine, Atlanta, GA

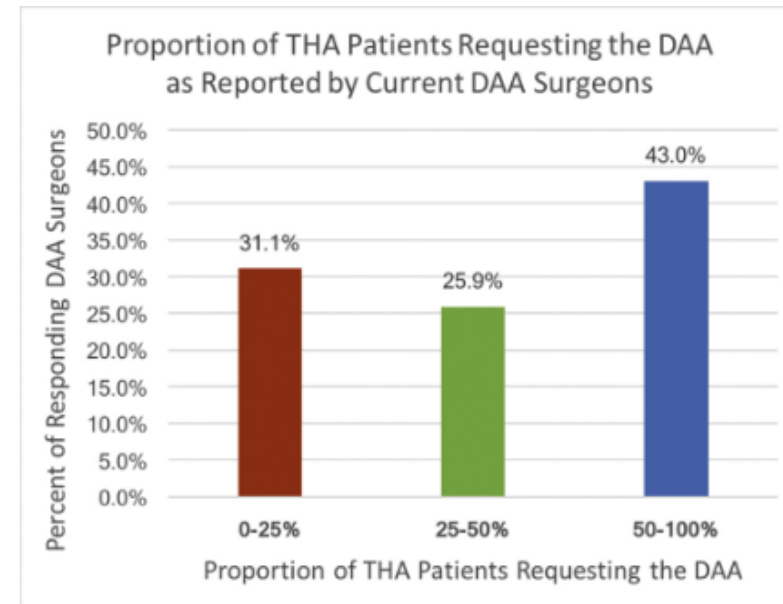
ARTICLE INFO

Article history:
 Received 18 February 2019
 Received in revised form 21 March 2019
 Accepted 9 April 2019
 Available online 18 April 2019

Keywords:
 direct anterior approach
 total hip arthroplasty
 total hip approach
 surgical preference
 surgical approach

ABSTRACT

Background: Despite increased popularity of the direct anterior approach (DAA) for total hip arthroplasty (THA), current practice trends and specific driving factors leading to adoption are not well established. *Methods:* We conducted an electronic e-mail survey of members of the American Association of Hip and Knee Surgeons inquiring into the choice of THA surgical approach, perceptions of clinical outcomes, and economic implications associated with the DAA. *Results:* Of 996 total respondents (44.3% American Association of Hip and Knee Surgeons member response rate), 56.2% currently perform the DAA. DAA performers have been in practice for statistically less time than non-performers (17.0 years vs 20.9 years, $P < .001$). Similarly, high-volume DAA surgeons have been in practice for less time than low-volume surgeons. DAA performers felt that revision case status (79.3%), complex anatomy (65.0%), and body habitus (53.0%) were factors leading to preferential use of the posterior approach. We also provide comprehensive data for perceived outcomes comparing the DAA and posterior approach. For current non-performers, the top reasons for not utilizing the DAA were feelings of worse outcomes, no clinical benefit, and concern for the learning curve. Economically,



g. 1. Proportion of THA patients requesting the DAA as reported by current DAA surgeons.



■ HIP

Surgical approach significantly affects the complication rates associated with total hip arthroplasty

V. K. Aggarwal,
A. Elbuluk,
J. Dundon,
C. Herrero,
C. Hernandez,
J. M. Vigdorchik,
R. Schwarzkopf,
R. Iorio,
W. J. Long

From NYU Langone
Medical Center,
New York, New York,
United States

Aims

A variety of surgical approaches are used for total hip arthroplasty (THA), all with reported advantages and disadvantages. A number of common complications can occur following THA regardless of the approach used. The purpose of this study was to compare five commonly used surgical approaches with respect to the incidence of surgery-related complications.

Patients and Methods

The electronic medical records of all patients who underwent primary elective THA at a single large-volume arthroplasty centre, between 2011 and 2016, with at least two years of follow-up, were reviewed. After exclusion, 3574 consecutive patients were included in the study. There were 1571 men (44.0%) and 2003 women (56.0%). Their mean age and body mass index (BMI) was 63.0 years (sd 11.8) and 29.1 kg/m² (sd 6.1), respectively. Data gathered included the age of the patient, BMI, the American Society of Anesthesiologists (ASA) score, estimated blood loss (EBL), length of stay (LOS), operating time, the presence of intra- or postoperative complications, type of complication, and the surgical approach. The approaches used during the study were posterior, anterior, direct lateral, anterolateral, and the northern approach. The complications that were recorded included prolonged wound drainage without infection, superficial infection, deep infection, dislocation, aseptic loosening, and periprosthetic fracture. Finally, the need for re-operation was recorded. Means were compared using analysis of variance (ANOVA) and Student's *t*-tests where appropriate and proportions were compared using the chi-squared test.

Results

A total of 248 patients had 263 of 6.94%. The anterior approach (113/1329) and the posterior approach had the highest incidence of complications (8.5% (113/1329)) and the posterior approach had the lowest, at 5.85% (97/1657; *p* = 0.006). Most complications were due to deep infection (22.8%), periprosthetic fracture (22.4%), and prolonged wound drainage (21.3%). The rate of dislocation was 0.84% (14/1657) with the posterior approach and 1.28% (17/1329) with the anterior approach (*p* = 0.32).

Conclusion

Overall, THA has a relatively low role in the incidence of complications significantly lower overall compared to equal dislocation rate. Periprosthetic to the early complication rates.

Results

A total of 248 patients had 263 complications related to the surgery, with an incidence of 6.94%. The anterior approach had the highest incidence of complications (8.5% (113/1329)) and the posterior approach had the lowest, at 5.85% (97/1657; *p* = 0.006). Most complications were due to deep infection (22.8%), periprosthetic fracture (22.4%), and prolonged wound drainage (21.3%). The rate of dislocation was 0.84% (14/1657) with the posterior approach and 1.28% (17/1329) with the anterior approach (*p* = 0.32).

- ≈3000 – 5 év alatt
 - 2 éves utánkövetés
 - 1300 DAA, 1300 PA