

Specific Question:

In adults with femoroacetabular impingement (FAI), is there any clinical or cost-effective differences between physiotherapy and surgery?

Clinical bottom line

For patients suffering with femoroacetabular impingement there is limited evidence to suggest that arthroscopic treatment is superior to physiotherapy treatment after 12 months. However, there is no current evidence comparing the treatments over a longer time period. Physiotherapy intervention has also been proven to be beneficial to patients suffering with FAI and is a more cost-effective treatment than surgery. Further research is required into the topic before a definitive decision about treatment can be made.

Why is this important?

The presentation of femoroacetabular impingement (FAI) syndrome is becoming more common in clinical practice and an important cause of hip pain in young adults. There is limited guidance on the best pathway for patients presenting with FAI and are often referred for orthopaedic surgical intervention. Since 2013 there has been large increase in the use of arthroscopic intervention for these patients. Physiotherapy led exercise programmes are also widely utilised however there is little known evidence to support either treatment method.

Search timeframe: 2008 - 2018

Inclusion Criteria

	Description	Search terms (In the final document this should be a combination of your clinical and librarian search terms)
Population and Setting	Adults, over the age of 16, presenting with femoroacetabular impingement syndrome, cam morphology,	Adults presenting with femoroacetabular impingement FAI Femoroacetabular impingement syndrome

Getting Evidence into Clinical Practice: Physiotherapy vs Surgery for FAI
 Musculoskeletal Research Facilitation Group (CAT Group)
 Date: 27/11/2019

	pincer morphology.	Cam morphology Pincer morphology Anterior hip pain Hip impingement Acetabular rim syndrome
Intervention or Exposure	Physiotherapy, rehabilitation, strengthening exercises, stretching exercises, glutes exercises, manual therapy.	Physiother* Rehabilit* Strengthening exercises Stretching exercises Glut* exercises Manual therapy Physical therapy
Comparison	Surgery, Arthroscopy, FAI, decompression, Labral repair, Cartilage repair	Surgery Arthroscopy Femoroacetabular impingement decompression FAI decompression Labral repair Cartilage repair Osteochondralplasty
Outcomes of interest	Pain, cost, function, harm.	Change in pain Cost-effectiveness

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		Improvement in function Harm Complications
Types of studies	Systematic reviews, randomised controlled trials, cohort studies.	

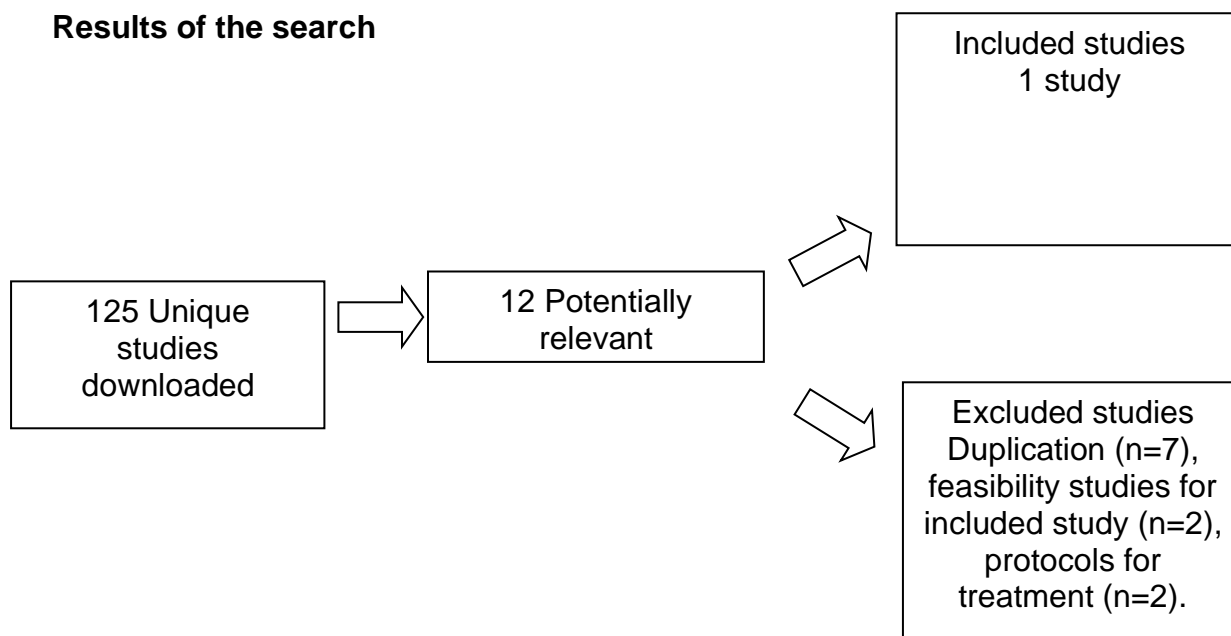
Exclusion Criteria: Total hip replacement, pagets disease, perthes disease, fractures, avascular necrosis of the femoral head, osteomyelitis, osteoarthritis.

Routine Databases Searched

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, The Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites, Web of science, Sports discus and Pub med

Date of search- 7th of November 2018

Results of the search



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Table 1- Detail of included studies

First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Griffin D, et al. (2018) Multi-Centre RCT	United Kingdom Adults 16 and over (n=348) Multi centre in UK Patient included with hip pain and radiological features of CAM and/or pincer deformities but no osteoarthritis.	2 Groups: 1. Bony reshaping via hip arthroscopy (received "normal" post-operative physiotherapy) 2. Personalised hip therapy including an individualised, supervised and progressive physiotherapy led programme	Primary outcome iHOT-33 (100 point score with 100 being no pain and lower scores meaning pain and decreased function) improved in both groups at 6 months and 12 months. (Surgery group improved 39.2 to 58.8 at 12 months. Conservative group improved 35.6 to 49.7 at 12 months) Mean age 35.3 years 92% completion of the iHOT-33 across both groups. The hip arthroscopy group improved more than physio group at 12 months (p value of 0.0094). Intention to treat analysis. Adjusted estimate of treatment effect measured with the primary outcome was 6.8 in favour of hip arthroscopy. Exceeded the minimally important difference of 6.1.	Clear and focused question. Multi-centred across UK. Appropriate computer-generated randomisation of participants. Participants could not be blinded. Groups were similar at beginning of trial and appeared well divided. Clear methodology. Crossover issues addressed however not eliminated. Surgery group also received some physiotherapy.

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				<p>Results are translatable to the general population.</p> <p>The cost of treatments clearly stated. Surgical intervention treatment costing £2,117 more than conservative care.</p>
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Summary

There is limited evidence to suggest that surgical management via a hip arthroscopy is a superior treatment to physiotherapy for adults over the age of 16 suffering with femoroacetabular impingement after 12 months. There is no evidence for longer term outcomes for both physiotherapy and surgical intervention for this group of patients.

Griffin D, et al (2018) found that there was a significant difference in improvement between hip arthroscopy and personalised hip therapy for patients suffering with femoroacetabular impingement. 348 participants were included in this multi-centred randomised control trial (RCT) assessing the outcome over a 6- and 12-month period. The authors acknowledge that both groups had a statistically significant improvement over the 12 months, but the differences favoured the surgical group to a clinically meaningful and statistically significant level (intention-to-treat analysis of 6.8). The authors fail to address that the surgical group did receive post-operative physiotherapy input which may represent a cofounding factor to the study. The authors acknowledged that the surgical treatment is at a much higher cost in comparison to the physiotherapy-led treatment. It is important to note in this study that crossover was addressed in the feasibility study however crossover was unable to be eliminated. 8% of the participants receiving conservative management went on to have the surgery in the 12-month. The authors acknowledged the lack of evidence beyond 12 months.

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Implications for Practice/research

From the limited evidence available hip arthroscopy may be a superior treatment to physiotherapy for young adults suffering with femoroacetabular impingement. However, there is no evidence analysing the longer-term outcomes for these specific patients. The FASHIoN trial hopes to continue to gather data on its participants at 2, 3, 5 and 10 years in order to provide a better picture for the long-term implications. It should be noted that physiotherapy is an effective treatment for these patients however the patient should be aware that hip arthroscopy may be an appropriate treatment. Physiotherapy has proven to be more cost effective and carries less risk than hip arthroscopy at 12 months. More evidence is required into this topic before making any definitive conclusions.

What would you tweet? (140 characters)

Limited evidence that hip arthroscopy might be more beneficial than physiotherapy led intervention for patients with FAI #moreresearchrequired #FAI #keeleCAT

References

Griffin, D., Dickensen, E., Hobson, R., Realpe, A., Parsons, N., Achana, F., Smith, J., Griffin, J., Hutchinson, C., Petrou, S., Wall, P., Donovan, J. and Foster, N. (2018). Hip arthroscopy compared to best conservative care for the treatment of femoroacetabular impingement syndrome: a randomised controlled trial (UK FASHIoN). *Osteoarthritis and Cartilage*, 26, pp.S24-S25.

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