Return to Golf Following Hip Arthroscopy : A Retrospective Cohort Study

Hanyu Liu[1,2], Dr Thomas Williams[1,2], Dr Patrick Robinson[1,2], Andrew D. Murray[3,4], Iain R. Murray[1,2,3], Nick Clement[1,2]

1 Department of Orthopaedics, University of Edinburgh, Scotland. 2 Edinburgh Orthopaedics, Royal Infirmary of Edinburgh 3 UK Collaborating Centre for Injury and Illness Prevention in Sport 4 European Tour, Health, and Performance Institute

Background

Femoro-acetabular Impingement Syndrome

Hip injuries, such as FAI syndrome, are widely recognised among both amateur and professional golfers

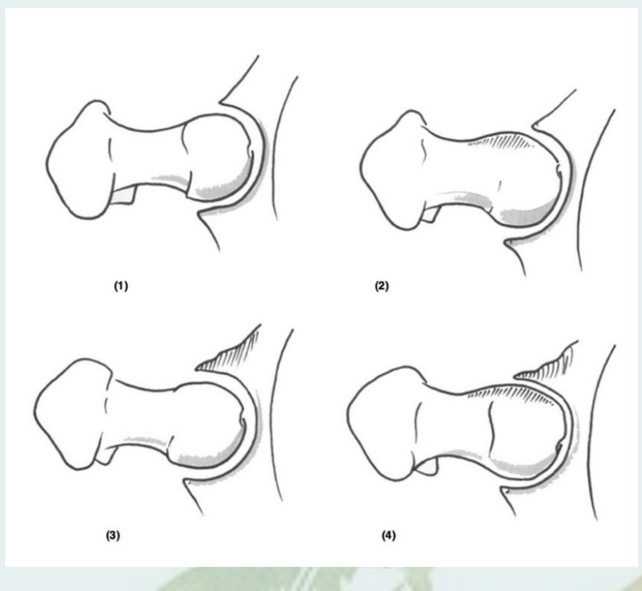

Fig 1 (1)Bony morphology in the axial plane of the normal hip joint. (2) a cam-type deformity of the femoral head FAI. (3) acetabular pincer. (4) a combined cam and pincer deformities. The lined areas in figures (2), (3) and (4) indicate the pathology describe

Arthroscopic procedures as treatment

RCTs studies	Primary outcome	Before hip scope vs Physio	After hip scope vs Physio
UK FASHIoN[1]	iHOT-33	39.2 vs 35.6	58.8 vs 49.7
US MHS	iHOT-33	28.5 vs 29.4	48.9 vs 43.9
FAIT[2]	HOS ADL	78.4 vs 69.2	10 point higher

Table 1. High profile RCTs study of investigation of the clinical outcomes between hip arthroscopy and conservative treatments

Although previous studies have reported return to sport following hip arthroscopy, little is known about how hip arthroscopy may affect an individual's ability to return to golf. The existing literature has not reported the time and rate of return to golf following arthroscopic procedures.

Aims

- To establish the rate and time of return to golf, and whether the functional outcomes are different in golfers and non-golfers following hip arthroscopy at a large tertiary referral centre, and to explore factors affecting a golfing return.
- The study will compare the surgical outcomes between labral repair and labral debridement.

Methods

- Ethics Approval: University Research Ethics Board
- Inclusion criteria: Patients who underwent hip arthroscopy at Edinburgh Royal Infirmary Hospital from 2008- 2022
- Exclusion: Patients whose Tönnis angle>13 degrees, who have died and whose information missed
- Procedures: performed by one surgeon (P.G.)
- Development of survey: Demographics, PROMs, specific golf related questions Data collection: We sent postal survey to all patients

Optimising survey responses

1. Each patient received two phone calls separated by 48hrs
2. Patients were contacted at times thought to be more convenient for them including at weekends or at off working time (6 pm -10 pm).
3. Ensuring addresses were correct through liaison with GP practices

Surgical Procedure

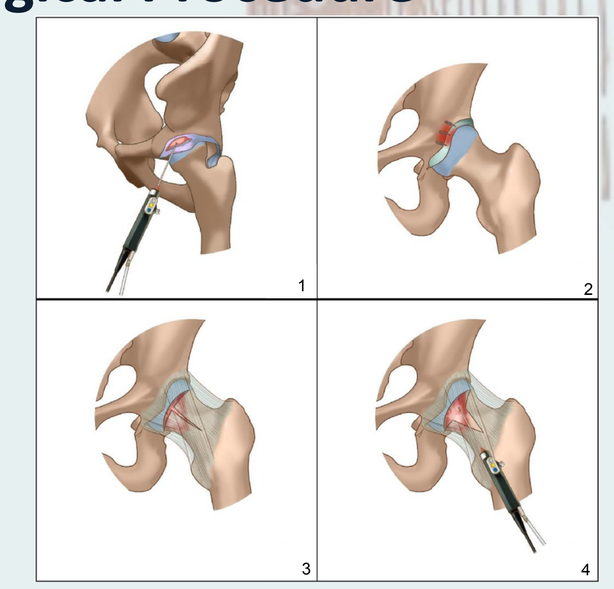

Fig2 The key procedures of hip arthroscopy. (1) probing labrum injury and resecting the pincer lesion. (2) labral repair (3) Extension of capsular incision. (4) resecting the cam deformity

Results

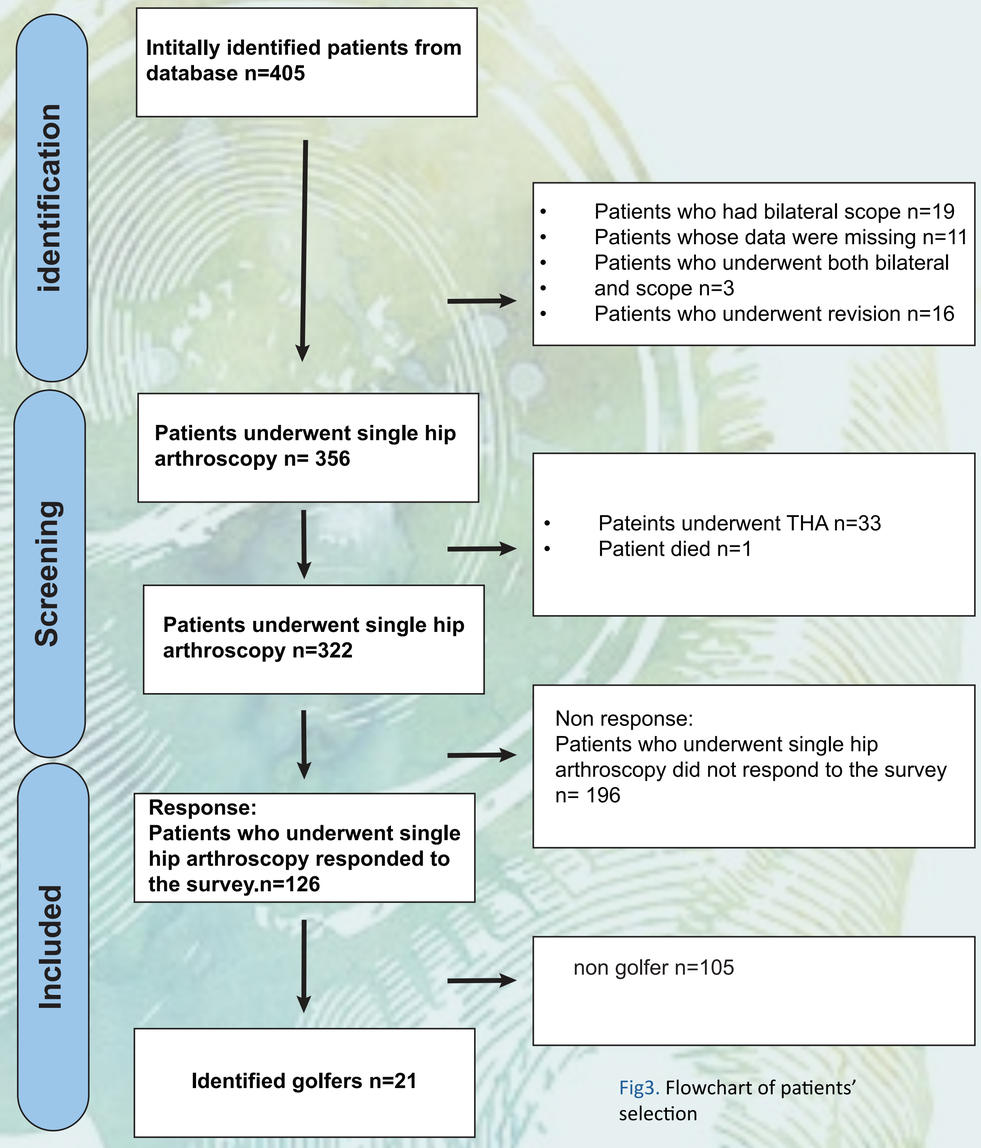

Fig3. Flowchart of patients' selection

Characteristics of golfers and non golfers

	Golfers (n=21) (16.7%)	Non-Golfers (n=105) (83.3%)	P value
Labral repair	13	68	0.566
labral debridement	7	31	
AOOP	37.10	33.07	0.111
Following up	8.38	7.35	0.109
RTS	26	15	0.049
EQ-5D-3L index	0.796	0.725	0.234
EQ-5D VAS	80	80	0.530
iHOT-12	80.83	68	0.204
FJS-12	34.4	62.5	0.128
Overall Satisfaction	9.5	8.15	0.335

Surgical outcome comparisons between labral repair and labral debridement

	Labral repair(n=80)	Labral debridement (n=39)	P value
Age at surgery	32.69	34.90	0.377
RTS	16	12	0.564
EQ-5D-3L	0.727	0.778	0.299
EQ-5D VAS	80	80	0.919
iHOT-12	73.53	46.79	0.566
FJS-12	58.3	46.79	0.566
Overall Satisfaction	8	9.05	0.057

Discussion

The most important finding of this retrospective cohort study was that there is no difference between golfers and non-golfers in terms of hip-specific functional outcomes following surgery according to golfing data. In addition, we found 62.5% of golfer patients returned to golf at a median of 6.5 (IQR: 7) months following hip arthroscopy.

Secondary outcomes result demonstrated non-significant differences in general life quality outcomes following hip arthroscopy (p= 0.234) between golfers and non golfers. This study shows that the clinical effect of hip arthroscopic treatment for golfers was the same as those in other sports. However, golfers seem to take a longer time to return to golf compared with non-golfers returning to their main sport (p= 0.049). The result implies that factors beyond hip function may have a critical role in determining the sporting return.

References

1.Griffin DR, Dickenson EJ, Wall PDH, et al. Hip arthroscopy versus best conservative care for the treatment of femoroacetabular impingement syndrome (UK FASHIoN): a multicentre randomised controlled trial. *Lancet*. 2018;391(10136):2225-2235. doi:10.1016/S0140-6736(18)31202-9. 2.Palmer AJR, Ayyar Gupta V, Fernquest S, et al. Arthroscopic hip surgery compared with physiotherapy and activity modification for the treatment of symptomatic femoroacetabular impingement: multicentre randomised controlled trial [published correction appears in BMJ. 2021 Jan 18;372:m3715. doi: 10.1136/bmj.m3715]. *BMJ*. 2019;364:l185. Published 2019 Feb 7. doi:10.1136/bmj.l185