

# Puncture Capsulotomy: Patients Report Favorable Outcomes at 5-Year Follow-up

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On Behalf of the Dr. Scott Martin Research Team

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# DISCLOSURES

- *Research Support provided by:*
- ***The Conine Family Fund for Joint Preservation***
- I (and/or my co-authors) have nothing to disclose directly related to this talk.
- I have no conflicts.

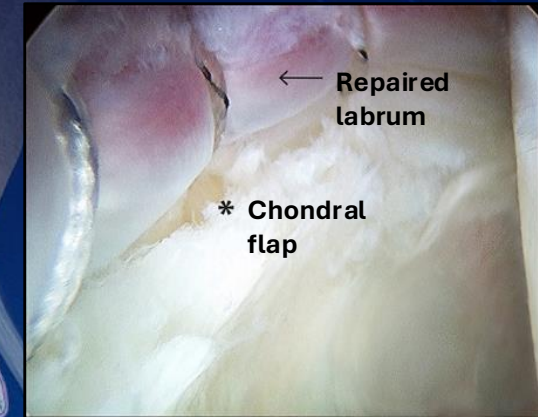
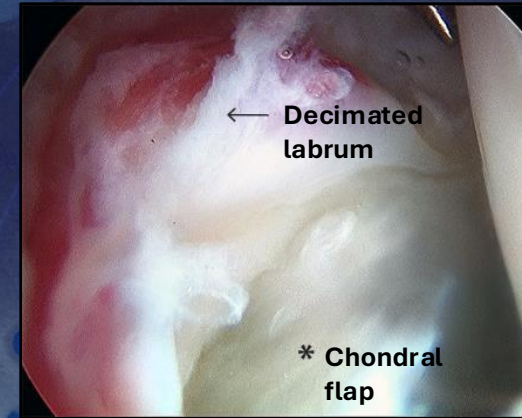




# BACKGROUND

- **Novel surgical technique for hip arthroscopy**
  - **Identification of predictors of poor outcomes**
  - **Preserves the stability of the capsule**
    - **Avoiding iatrogenic transection of the iliofemoral ligament**
- **Study Aim**
- Present minimal **5-year** functional outcomes and rates of **conversion to total hip** for patients who underwent hip arthroscopy for labral tears secondary to femoroacetabular impingement using the **puncture capsulotomy technique**.

## Arthroscopic Labral Repair





# METHODS

- Retrospective review of prospective data
  - Patients  $\geq 18$  years
  - Underwent hip arthroscopy by a single surgeon
    - Treatment of symptomatic labral tears
      - Secondary to femoroacetabular impingement (FAI)

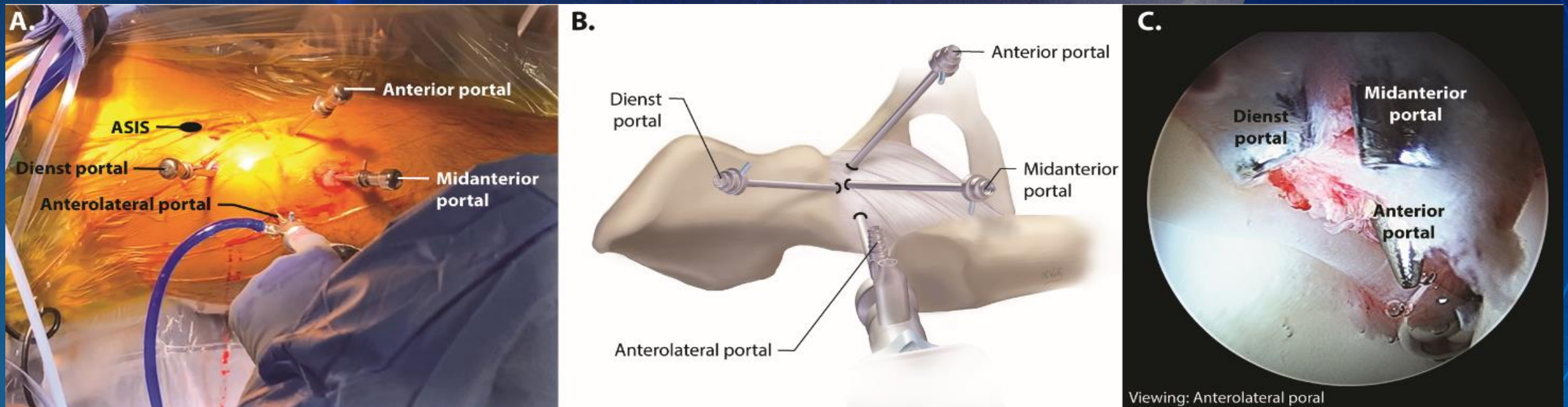


Figure 1. All four portals placed correctly form a quadrilateral arrangement (A). This arrangement allows for complete visualization and access to the hip joint (B). The anterolateral portal is used as the main viewing portal (C)



# RESULTS

- 109 hip were included in this study
  - 49.5 % female
  - Mean age  $\pm$  SD: 37.7  $\pm$  14.1
- Significant improvement in PROMs
  - mHHS
  - HOS-ADL
  - HOS-Sport
  - iHOT-33
- Revision hip arthroscopy
  - 0%
- THA conversion
  - 7.83%
- Cases of instability or dislocation
  - 0%

	n	Mean (95% CI)	P
mHHS			
Baseline	105	63.16 (60.36, 65.95)	<.001
3 mo	92	78.09 (75.18, 81.01)	<.001
6 mo	96	84.07 (81.6, 86.54)	<.001
12 mo	104	87.87 (85.77, 89.97)	<.001
24 mo	108	87.27 (84.71, 89.83)	<.001
60 mo	109	88.94 (86.42, 91.46)	<.001
HOS-ADL			
Baseline	105	71.14 (67.41, 74.88)	<.001
3 mo	92	81.01 (78.39, 83.63)	<.001
6 mo	97	87.12 (84.89, 89.35)	<.001
12 mo	104	91.38 (89.67, 93.08)	<.001
24 mo	108	91.22 (89.12, 93.32)	<.001
60 mo	109	92.78 (90.69, 94.87)	<.001
HOS-Sport			
Baseline	105	41.81 (36.96, 46.66)	
3 mo	91	42.84 (36.73, 48.94)	.376
6 mo	97	62.82 (57.34, 68.31)	<.001
12 mo	102	74.93 (70.23, 79.63)	<.001
24 mo	108	79.11 (74.77, 83.45)	<.001
60 mo	109	81.72 (77.24, 86.21)	<.001
iHOT-33			
Baseline	105	41.91 (38.25, 45.56)	<.001
3 mo	93	62.12 (58.58, 65.66)	<.001
6 mo	96	70.59 (66.95, 74.24)	<.001
12 mo	104	77.57 (74.18, 80.96)	<.001
24 mo	108	79.24 (75.62, 82.86)	<.001
60 mo	106	84.4 (80.66, 88.13)	<.001

Table 1. PROM scores at final follow-up

P values indicate statistical significance in comparison to baseline values. Reported are: mHHS, modified Harris Hip Score; HOS-ADL, Hip Outcome Score-Activities of Daily Living; HOS-Sport, Hip Outcome Score-Sports Specific Subscale; iHOT-33, 33-Item International Hip Outcome Tool; VAS pain, Visual Analog Score .



# Clinically Meaningful Outcomes

- Favorable clinically meaningful outcomes

- iHOT-33
- HOS-ADL
- HOS-Sport
- mHHS

TABLE 3		
Clinically Meaningful Outcomes at 5-year Follow-up		
	Threshold	n (%)
MCID		
iHOT-33	15.1	89 (74.8)
HOS-ADL	10.2	75(63.0)
HOS-Sport	15.2	88 (73.9)
mHHS	11.4	83(69.7)
PASS		
iHOT-33	74.3	78 (65.5)
HOS-ADL	92.2	80 (67.2)
HOS-Sport	80.9	78 (65.5)
mHHS	83.6	85 (71.4)
SCB		
iHOT-33	87.5	69(58.0)
HOS-ADL	94.6	69(58.0)
HOS-Sport	85.8	68 (57.1)
mHHS	94.4	62 (52.1)

Table 2. MCID, Minimal Clinically Important Difference; PASS, Patient Acceptable Symptom Score; SCB, Substantial Clinical Benefit





# CONCLUSIONS

- **Puncture Capsulotomy**
  - **Significantly improved functional outcomes**
    - *All PROM scales*
  - **Favorable clinically meaningful outcomes**
    - *MCID, PASS, and SCB*
- **Patients treated via puncture capsulotomy**
  - **Report excellent mid-term functional outcomes**



# THANK YOU

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