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# Hydrodilatation is an Effective Treatment for Both Diabetics & Non-Diabetics With Adhesive Capsulitis

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# Faculty Disclosure Information

- No disclosures



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# Background

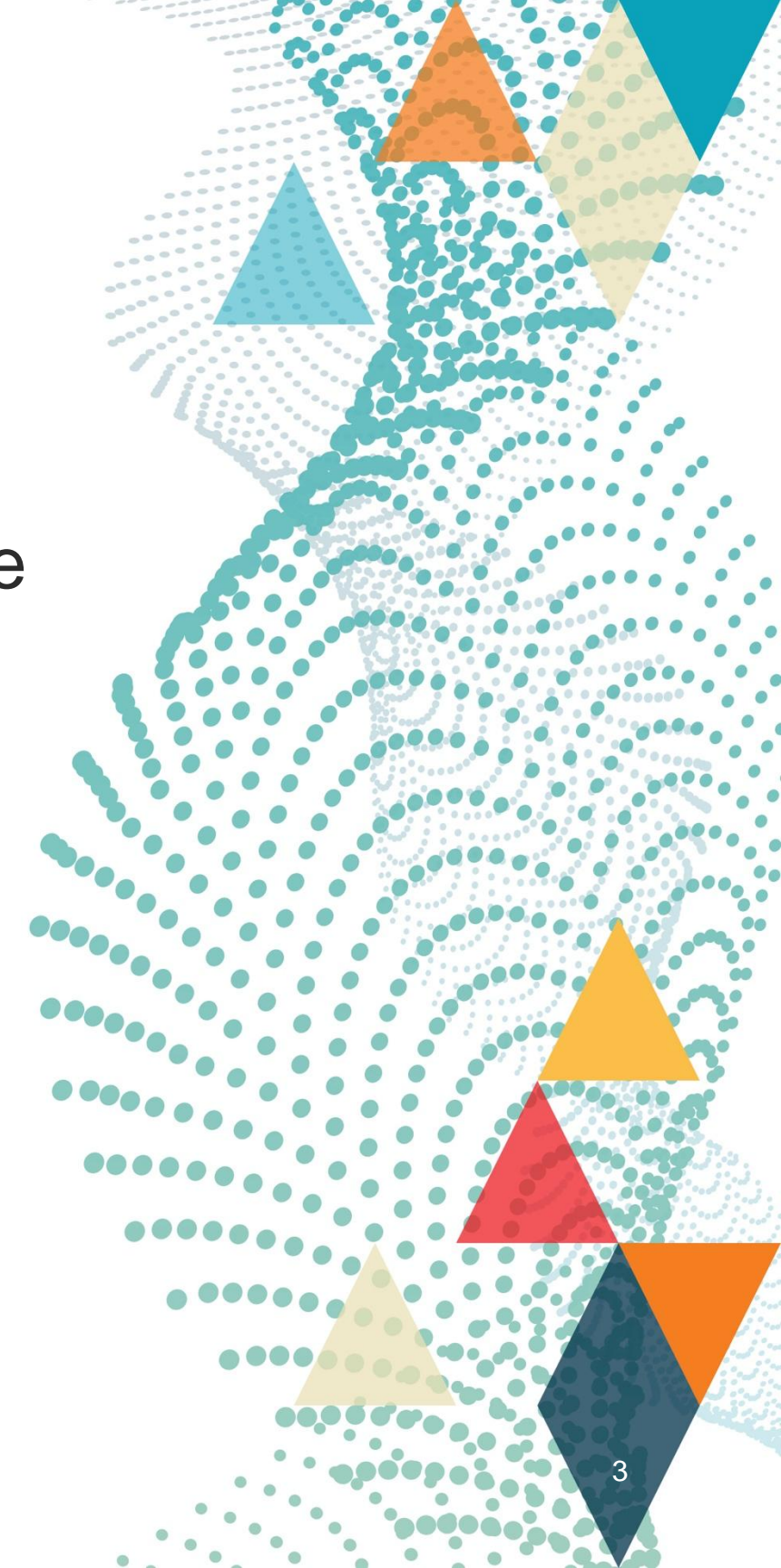
- Adhesive capsulitis (AC) symptoms resolution can take from 6 months up to 3 years
- Recently, hydrodilatation (HD) has surfaced as a suitable treatment option
- Arthrographic distention or rupture of the glenohumeral joint capsule with large amount of fluid
- This study aims to evaluate short & medium term outcomes for HD for AC in diabetic and non-diabetic patients



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# Methods

- Retrospective, single center study
- All patients with clinical diagnosis of AC who underwent HD in our institution from January 2021 to June 2022
- Approved by local Research and Ethics Committee
- Demographic data, VAS pain score, shoulder range of motion were collected at presentation, 1 month and 6 month following HD procedure

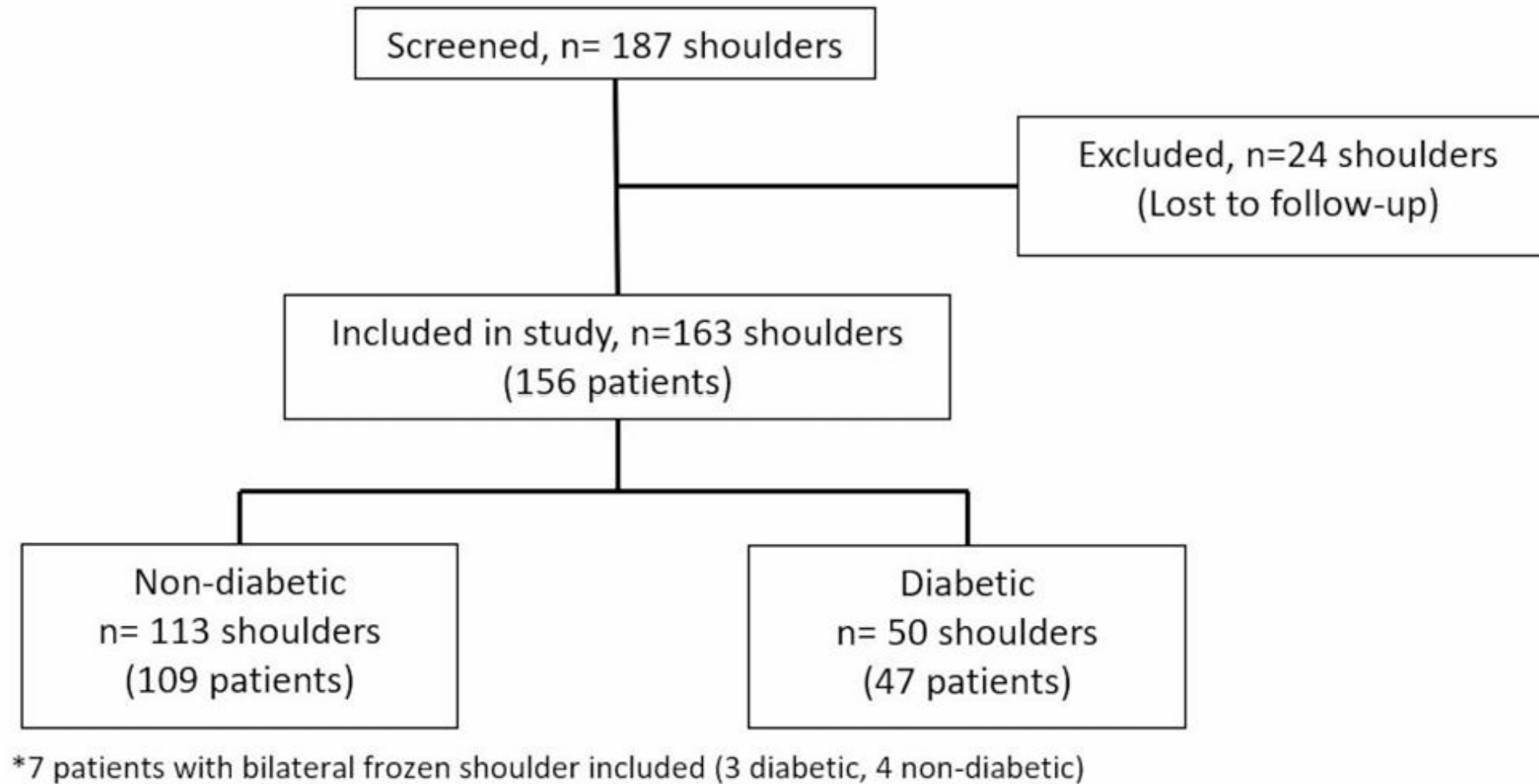


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# Results





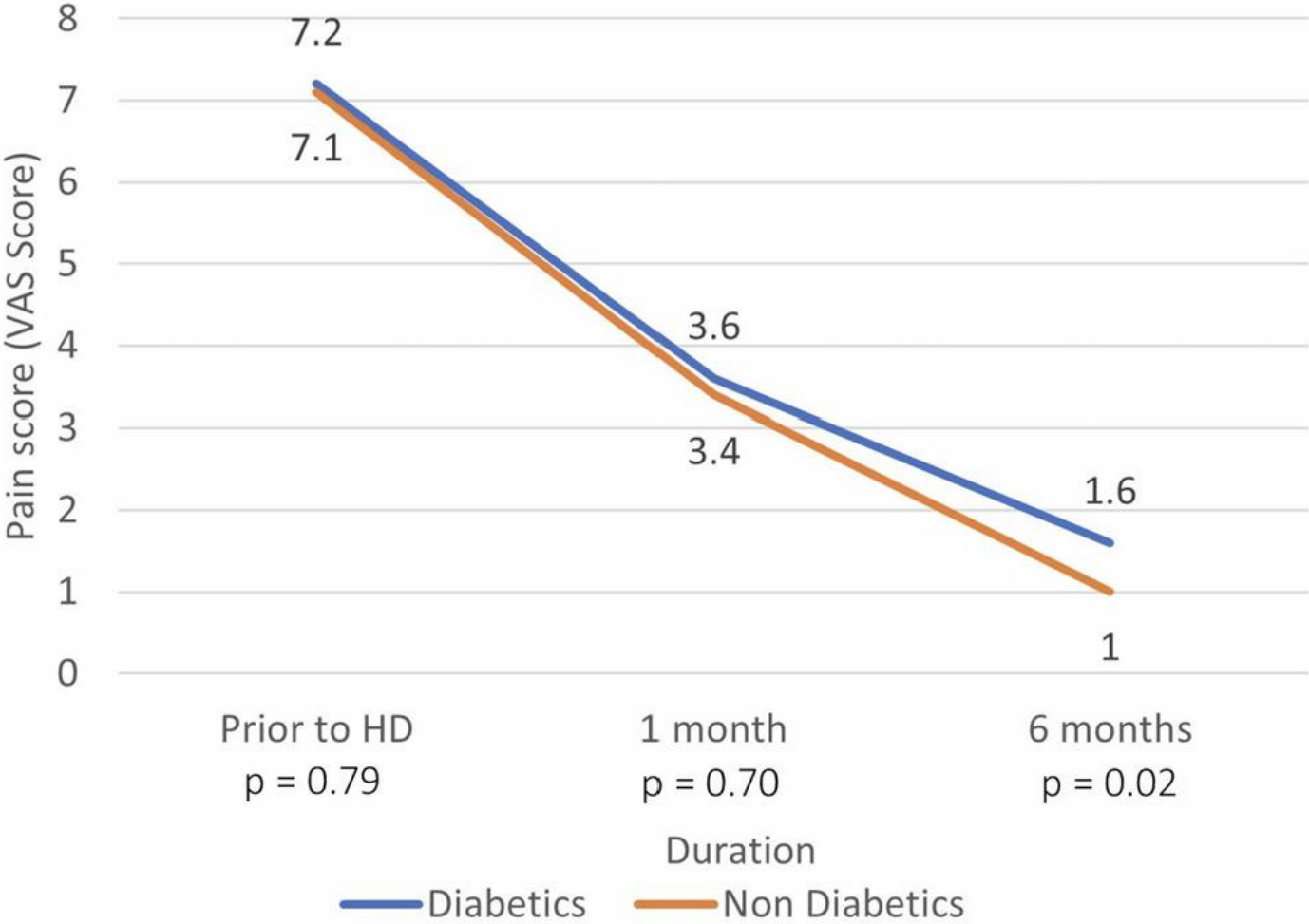
# Results

**Table 2** Comparing diabetic and non diabetic populations

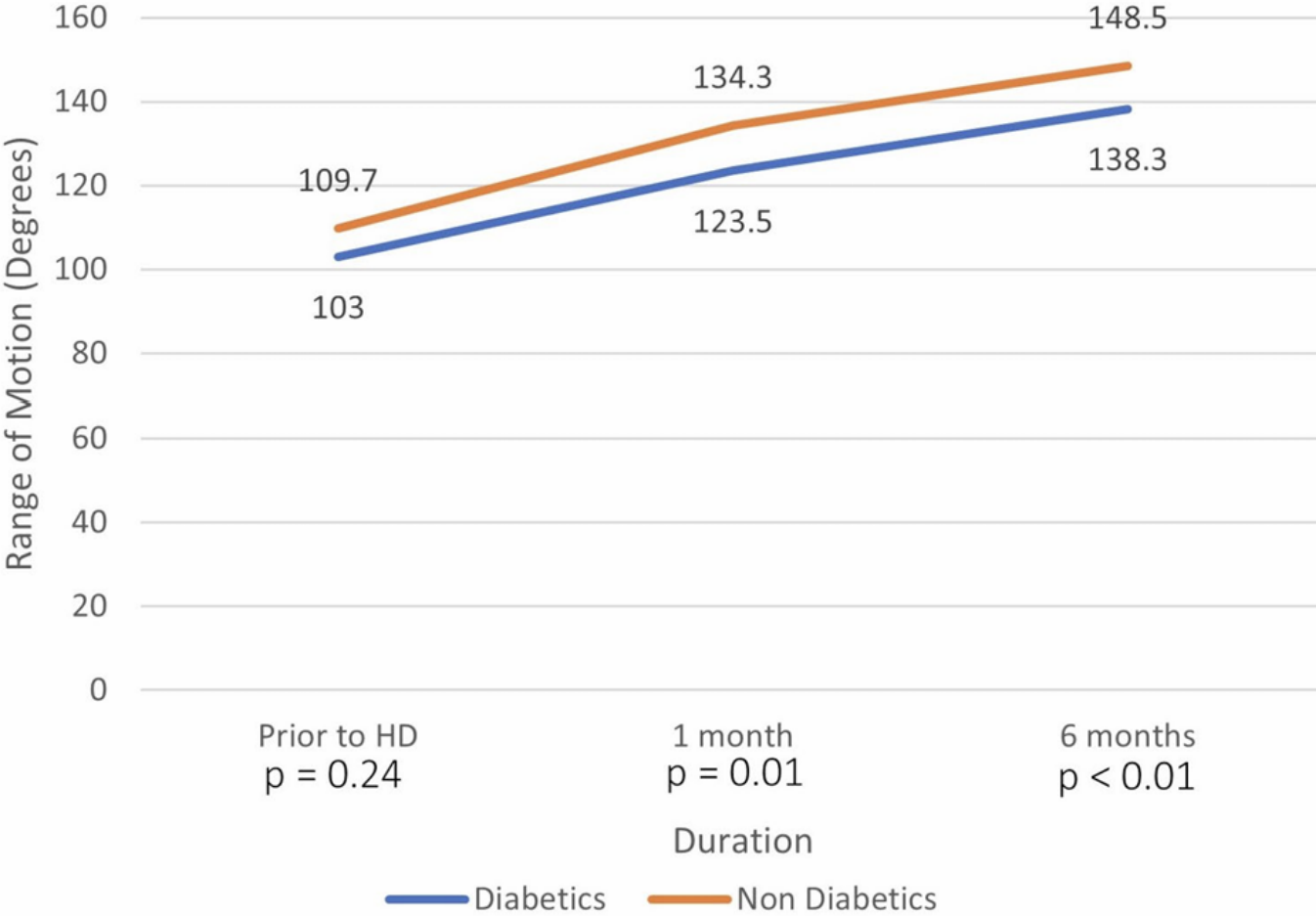
		Mean	Diabetics	Non Diabetics	P Value
Prior to HD	Onset Time to Initial Presentation (Months)	6.1 (±4.9)	7.2 (±6.3)	5.6 (±4.0)	0.11
	Range of motion				
	Forward flexion (Degrees)	107.8 (±28.0)	103.0 (±28.8)	109.7 (±27.5)	0.24
	External Rotation (Degrees)	31.7 (±18.2)	29.1 (±15.3)	31.9 (±19.4)	0.34
	Pain Score (VAS Score)	7.2 (±1.7)	7.2 (±1.7)	7.1 (±1.7)	0.79
Outcomes					
1 month	Forward flexion (Degrees)	130.9 (±26.1)	123.5 (±24.7)	134.3 (±26.1)	<b>0.01</b>
	External Rotation (Degrees)	41.2 (±17.6)	38.2 (±17.6)	42.6 (±17.5)	0.12
	Pain Score (VAS Score)	3.5 (±1.7)	3.6 (±1.9)	3.4 (±1.6)	0.70
6 months	Forward flexion (Degrees)	145.4 (±21.4)	138.3 (±23.9)	148.5 (±19.5)	<b>&lt;0.01</b>
	External Rotation (Degrees)	50.7 (±14.7)	46.3 (±16.3)	52.7 (±13.6)	<b>0.02</b>
	Pain Score (VAS Score)	1.2 (±1.4)	1.6. (±1.5)	1.0. (±1.3)	<b>0.02</b>

# Results

Pain Score



Forward Flexion





# Discussion

- HD is a treatment modality that has shown significant pain reduction and ROM improvement for treatment of AC in our study and recent literature
- Diabetic patients had statistically significant inferior improvements in mean VAS scores and ROM (forward flexion and external rotation), compared to non-diabetics at the 6<sup>th</sup> month follow up.
- Degree of improvement is less amongst the diabetic population in the treatment of AC with HD





# Strengths & Limitations

- One of the largest studies exploring diabetics with AC undergoing HD
- Lack of a comparative control arm with a group of patients that only undergo physical therapy without having undergone HD



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# Conclusion

- HD is an effective treatment option in the short and medium term in both diabetics and non-diabetics with AC
- Both groups experience good relief of pain and improvement in their shoulder ROM
- Diabetic patients have significantly less improvement in ROM and pain compared to non-diabetics at 6 months post HD



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