

**COMPARISON OF QUALITY OF LIFE IN PATIENTS
UNDERGOING REPAIR OF SYMPTOMATIC AND
ASYMPTOMATIC INGUINAL HERNIA**

2025 ACHQC QUALITY IMPROVEMENT SUMMIT


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February 22, 2025

BACKGROUND AND SIGNIFICANCE

- **Primary Goal of Inguinal Hernia Repair**
 - Improve Quality of Life (QoL)
 - Eliminate hernia-related discomfort
- Return to elective activities, employment, and activities of daily living
 - Asymptomatic Patients **QoL → ???**
 - Prevention of Hernia Related Complications
 - Patient Peace of Mind

BACKGROUND AND SIGNIFICANCE

► [Surg Open Sci. 2022 Jul 22;10:76–82. doi: 10.1016/j.sopen.2022.07.002](#) 

Postoperative outcomes that matter to patients undergoing inguinal hernia repair: A qualitative study

[Anders Gram-Hanssen](#)^{a,*}, [Jannie Laursen](#)^b, [Dennis Zetner](#)^a, [Jacob Rosenberg](#)^a

- **Qualitative Study**
- **Patients care about their postoperative QoL outcomes**
- **Traditional outcome metrics:**
 - **Hernia complications/recurrence rates**

> J Robot Surg. 2018 Jun;12(2):261-269. doi: 10.1007/s11701-017-0727-8. Epub 2017 Jul 13.

Long-term quality of life and outcomes following robotic assisted TAPP inguinal hernia repair

Andrew Iraniha¹, Joshua Peloquin²

- **82 Patients (159 inguinal hernias)**
- **Modified Short Form 12 – QoL**
- **Significant in postoperative QoL 12-36 months**
- ***No Differentiation between asymptomatic and symptomatic patients preoperatively***
- **We don't have any studies that look specifically at QoL in symptomatic and asymptomatic patients separately**

Functional outcomes in symptomatic versus asymptomatic patients undergoing incisional hernia repair: Replacing one problem with another? A prospective cohort study in 1312 patients

Gijs H J de Smet ¹, Dimitri Sneiders ², Yagmur Yurtkap ², Anand G Menon ³, Johannes Jeekel ⁴, Gert-Jan Kleinrensink ⁴, Johan F Lange ⁵, Jean-François Gillion ⁶; Hernia-Club Members

- **Symptomatic and Asymptomatic Patients** undergoing repair of *incisional* hernias
- **Postoperative Outcomes**
 - Symptomatic patients → 72% had Improved QoL
 - Asymptomatic patients → 20% developed new bothersome symptoms
- Postoperative QoL is important to patients
- Proportion of asymptomatic patients that develop new and bothersome symptoms

SPECIFIC AIM:

Compare pre- and postoperative patient reported QoL outcomes in symptomatic and asymptomatic patients undergoing inguinal hernia repair.

HYPOTHESIS:

1. Symptomatic patients show greater improvement in patient reported QoL outcomes compared to asymptomatic patients

AND

2. A proportion of asymptomatic patients will develop new postoperative symptoms that could negatively affect their QoL.

STUDY DESIGN AND METHODS

- ACHQC database (2016-2024) → Retrospective Analysis
 - Inclusion Criteria
 - Unilateral elective inguinal hernia repair with mesh → at least 1 year follow-up
 - Completed pre- and post-operative patient reported QoL outcomes
 - EuraHS QoL score
- | | |
|---|---|
| <ul style="list-style-type: none">• <u>“Asymptomatic”</u><ul style="list-style-type: none">• Enlarging Bulge• Bulge Without Pain | <ul style="list-style-type: none">• <u>“Symptomatic”</u><ul style="list-style-type: none">• Painful Bulge• Pain Without a Bulge (and Presence of Hernia) |
|---|---|

STUDY DESIGN AND METHODS

Statistical Analysis

- *Propensity Matching: Age, Sex, Race, Hernia Size, Anesthesia/Operative techniques.*
- **Propensity matching was done to make both groups as similar as possible**
- **Wilcoxon and Pearson Tests for comparison**

Outcome Measures

- **Primary Outcome: Preoperative (baseline), 30-day, 6-month, and 5-year QoL**
- **Secondary Outcome: Complications and Recurrence Rate**

RESULTS

Before Propensity Matching

Symptomatic

N: 4410

Age (mean): 62 years

Asymptomatic

N: 413

Age (mean): 63 years



After Propensity Matching

Symptomatic

N: 998

Age (mean): 62

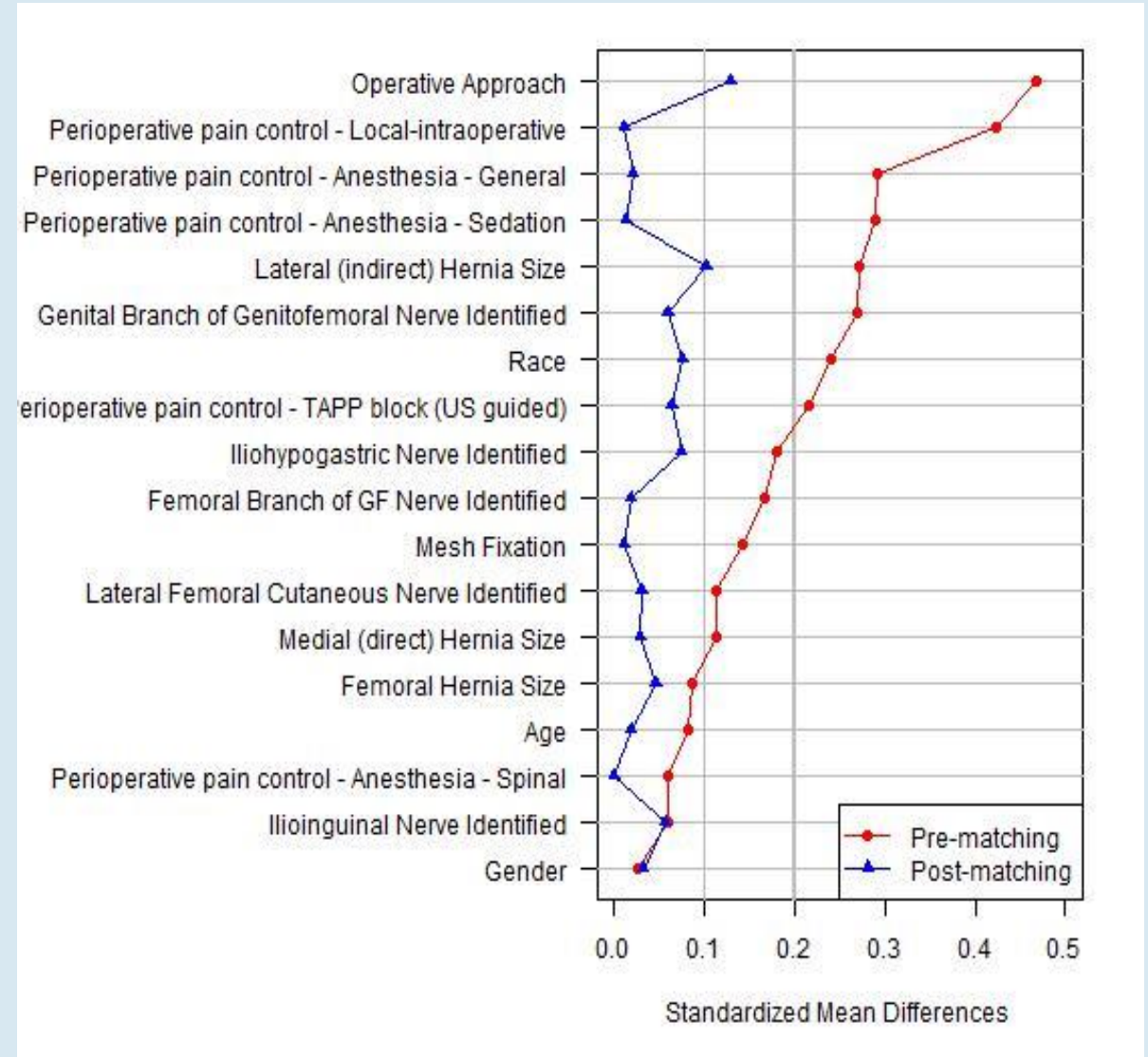
Asymptomatic

N: 358

Age (mean): 63

Demographics

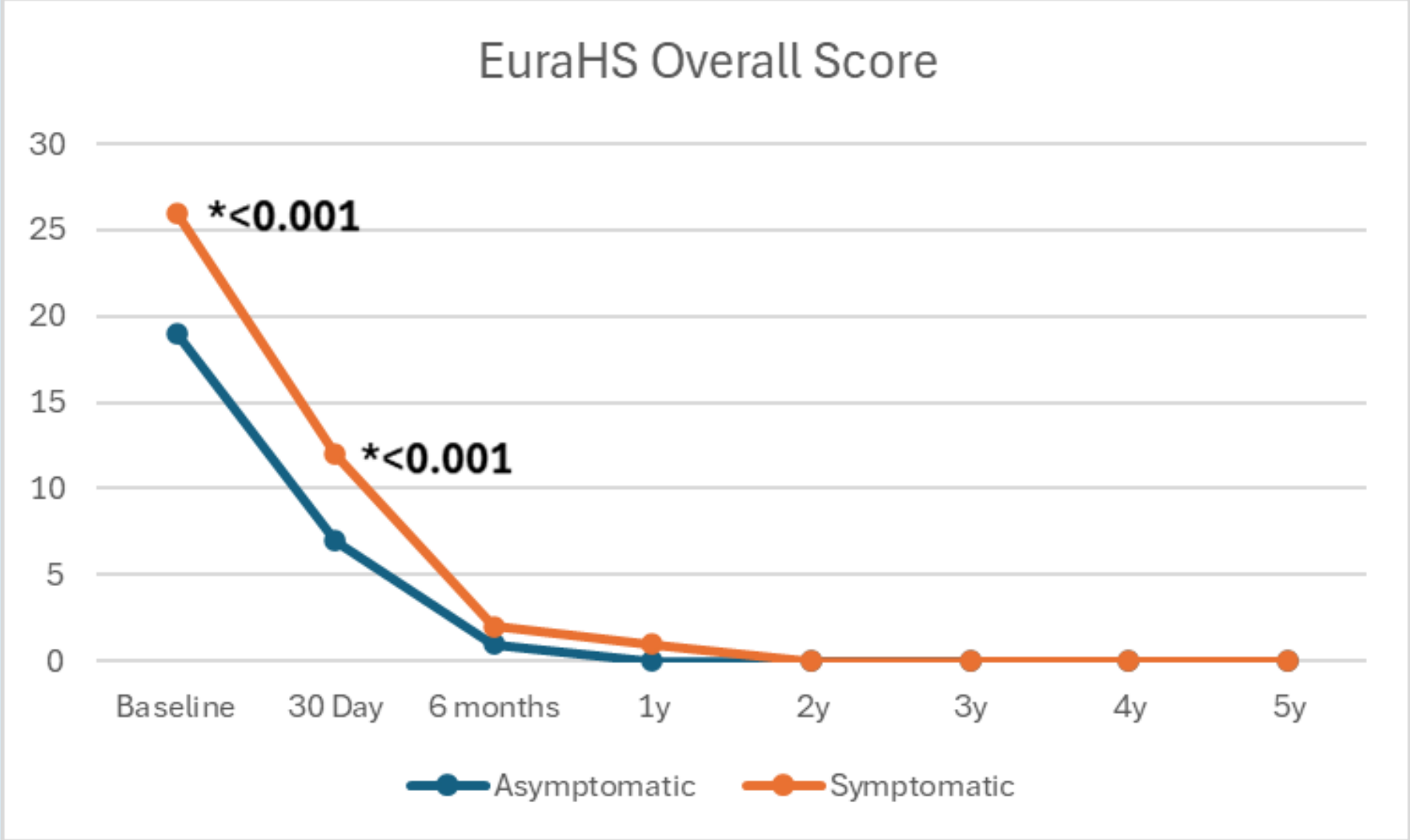
- 90% Male
- 88% White Individuals



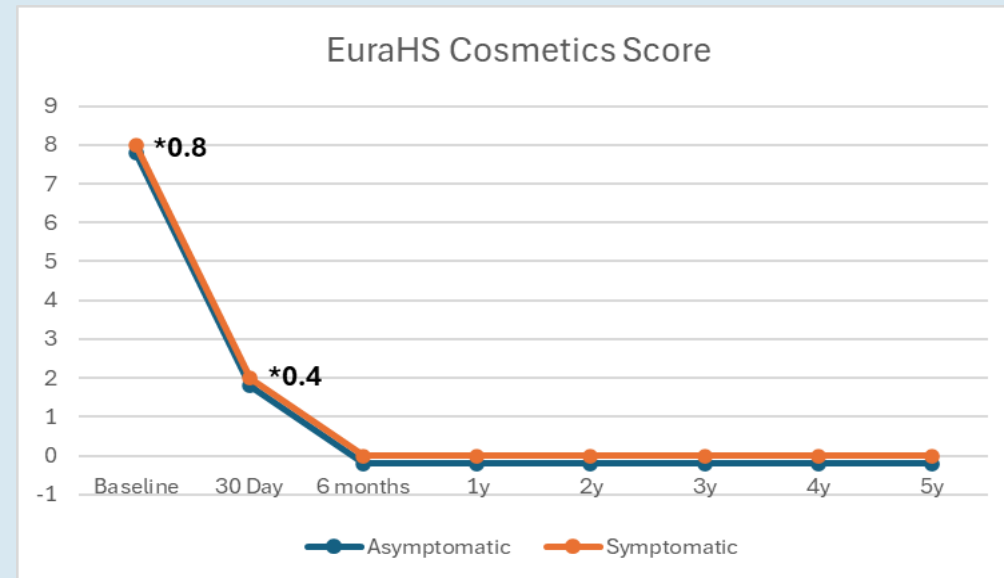
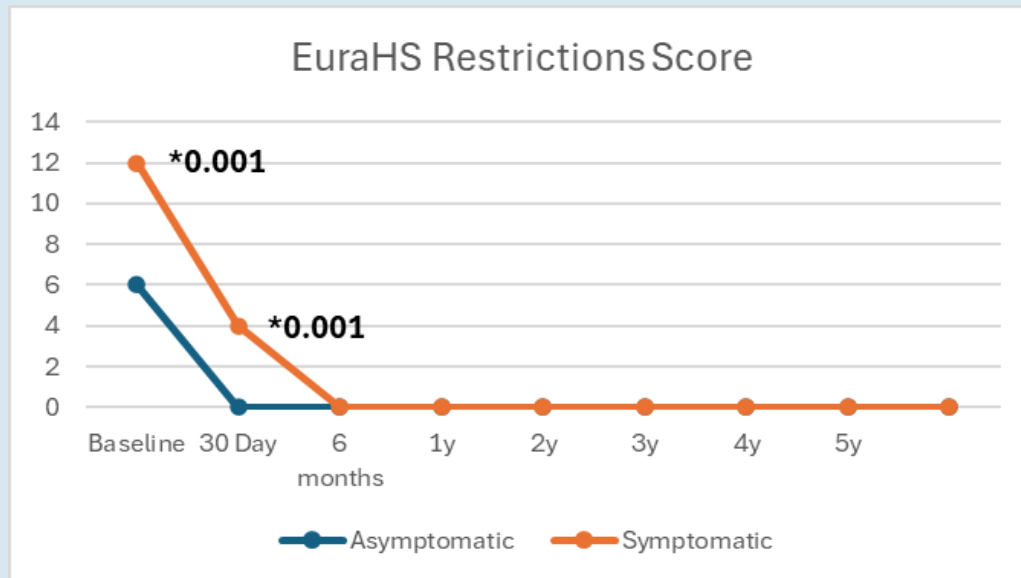
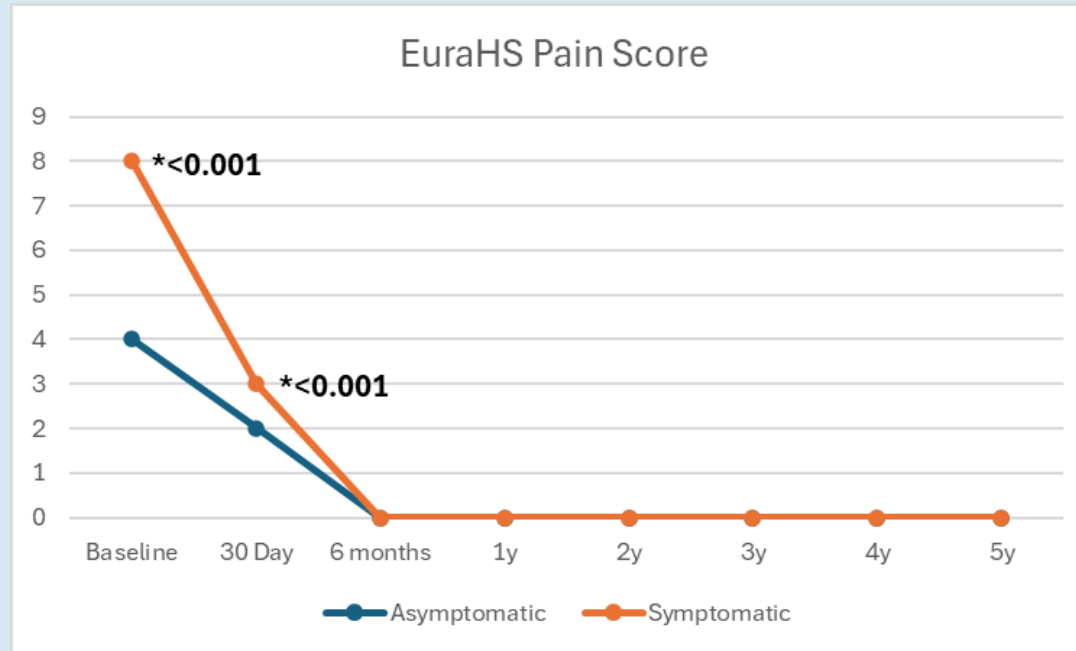
EURAHS QUALITY OF LIFE

1. Pain at the site of the hernia												
	0 = no pain					10 = worst pain imaginable						
Pain in rest (lying down)	0	1	2	3	4	5	6	7	8	9	10	
Pain during activities (walking, biking, sports)	0	1	2	3	4	5	6	7	8	9	10	
Pain felt during the last week	0	1	2	3	4	5	6	7	8	9	10	
2. Restrictions of activities because of pain or discomfort at the site of the hernia												
	0 = no restriction					10 = completely restricted						
Restriction from daily activities (inside the house)	0	1	2	3	4	5	6	7	8	9	10	X
Restriction outside the house (walking, biking, driving)	0	1	2	3	4	5	6	7	8	9	10	X
Restriction during sports	0	1	2	3	4	5	6	7	8	9	10	X
Restriction during heavy labour	0	1	2	3	4	5	6	7	8	9	10	X
	X = If you do not perform this activity											
3. Esthetical discomfort												
	0 = very beautiful					10 = extremely ugly						
Shape of your abdomen	0	1	2	3	4	5	6	7	8	9	10	
Site of the hernia	0	1	2	3	4	5	6	7	8	9	10	

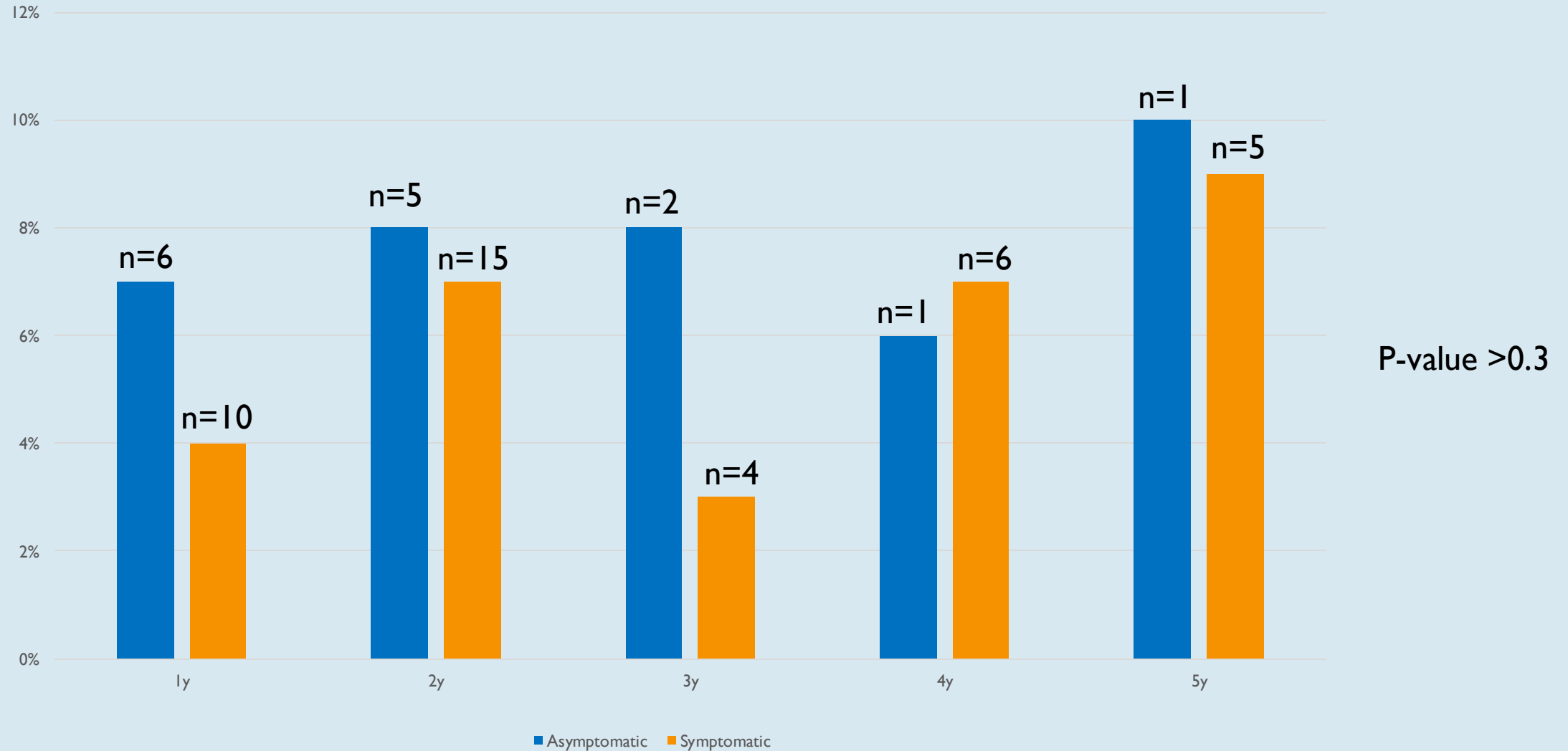
RESULTS: EURAHS QUALITY OF LIFE SCORES



RESULTS: EURAHS QUALITY OF LIFE SCORES



PERCENTAGE OF PATIENTS WHO EXPERIENCED POSTOPERATIVE DECLINE IN QUALITY OF LIFE



RESULTS: RECURRENCE AND COMPLICATIONS

Hernia Recurrence

- **Hernia Recurrence Rate**
 - **Patient-reported 30 days: 18%**
 - **Patient-reported 6 months-5 years: 5.4%**
 - **Clinical 5 years: <0.1%**
- **No difference between asymptomatic and symptomatic groups in patient-reported or clinical recurrence rate**

Perioperative Complications

- **30-day complication rate: 6%**
 - **4% asymptomatic**
 - **6% symptomatic**
- **No surgical site infections**
- **No difference between groups in:**
 - **Length of Stay**
 - **Readmission**
 - **Reoperation**
 - **Cardiovascular, pulmonary, renal, neurologic complications**
 - **All other complications**

CONCLUSIONS

- **Both groups experienced improvements in QoL after inguinal hernia repair**
- **Low rates of worsening in QoL after inguinal hernia repair**
- **Low complication rate & no significant difference between groups**
- **No difference in hernia recurrence rate out to 5-years postoperatively**
- **These results may help guide preoperative discussions with patients**

ACKNOWLEDGMENTS

ACHQC

Avika Sharma, BS, BA, RSC, CCMA:

2024 ACHQC RESIDENT & FELLOW RESEARCH GRANT RECIPIENT

Thank You:

Robert B. Yates, MD, FACS: Faculty Mentor

Vivan Hsiao, MD: Center for Videoendoscopic Surgery Fellow