Social Deprivation is Associated with Non-Resolution of Symptoms following Peroral Endoscopic Myotomy

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BACKGROUND

Peroral endoscopic myotomy (POEM) = definitive therapy for achalasia.

Some patients experience symptoms for years before POEM, and some have persistent symptoms for years after[1-2].

Access to POEM and recovery may be influenced by socioeconomic status (SES)[3].

Question: What factors predict longer time to POEM and persistent symptoms after POEM? Does socioeconomic status play a role?

METHODS

Study Design: Retrospective cohort, single tertiary referral center, 2015-2025

Study Population: Adults with achalasia undergoing POEM with documented symptom onset and surgery dates

Primary Exposure: Delay ≥4 years (upper tertile)

Covariates: Age, BMI, sex, CCI, area deprivation index (ADI ≈ SES)[4], rurality, achalasia subtype, prior interventions

Outcomes: Any persistent esophageal symptoms at first follow-up and at 6 months

Descriptive statistics

Multivariable logistic regression

RESULTS

N = 221 → 74 (33.5%) had time from symptom onset to POEM ≥4 years

- More often **older (median 64.28 years),** with **type 3 disease,** and had **multiple prior endoscopic interventions; no differences by ADI**
- **63.6% experienced no symptoms at follow-up → dysphagia, reflux, regurgitation, and emesis were the most common persistent symptoms at 6 mo.**

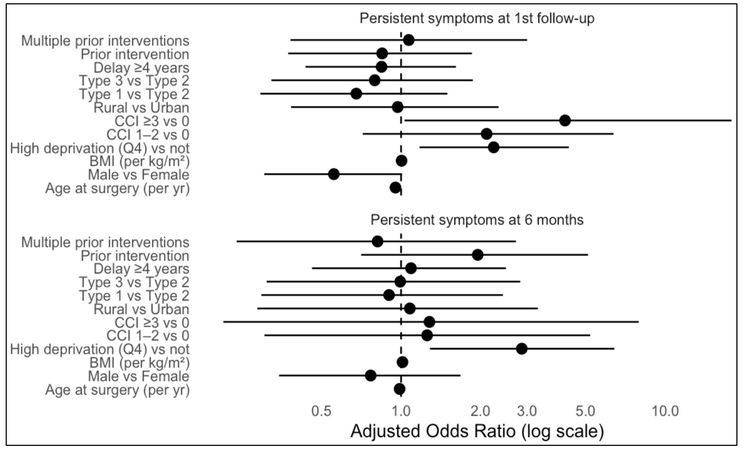
Predictors of time from symptom onset to POEM ≥4 years:

Type 3 achalasia

Multiple prior interventions

Takeaway: Longer time to POEM reflects disease complexity and serial non-definitive therapy. Social deprivation is NOT predictive.

Predictors of persistent symptoms at 1st follow up and at 6 months:



Takeaway: Persistent symptoms concentrate among socially and clinically vulnerable patients.

CONCLUSIONS

Delays to POEM seem to be driven by clinical complexity rather than social deprivation.

Non-medical factors, like SES, alongside clinical risk influence persistent symptoms after POEM.

Implications: Incorporating social risk (e.g., ADI) and comorbidity into perioperative planning could support risk-stratified follow-up (earlier check-ins, symptom surveillance, reflux optimization, and supportive services).

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