Results of Hospital Teaching Status on Percutaneous Endoscopic Gastrostomy Placement in Ascites Patients: A Population Based Study

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Introduction & Aim

- Ascites is viewed as a relative and often absolute contraindication to the insertion of a percutaneous endoscopic gastrostomy (PEG) tube
- Nonetheless, PEG tube placement may be required in certain circumstances to ensure proper nutrition.
- Aim: Assess teaching versus nonteaching hospital inpatient outcomes in PEG tube placement in ascites patients

Methods

Data & Cohort
- 2001-2014 National Inpatient Sample (NIS)
- Cases of Ascites and associated procedure of PEG tube placement in teaching and nonteaching hospitals

Baseline Characteristics Observed / Covariates
- Patient Demographics: Age, Race, Sex, Income, Payer
- Hospital Characteristics: Size, Region
- Clinical Features: Elixhauser comorbidities, Admission Status, liver disease
- Assessed with Rao-Scott Chi-Squared and Mann-Whitney tests

Outcomes Assessment
- Primary Outcomes: complications rates of pneumonia, respiratory failure, shock, peritonitis, and blood transfusion
- Secondary Outcomes: mortality, total charges, and length of stay
- Multivariable Poisson and logistic regression
- Controlled for baseline characteristic differences

Results

- 15,251 weighted PEG tube placement in Ascites in teaching hospitals vs. 9,305 for non-teaching hospitals were identified
- Pre-match, teaching hospitals had a higher rate of PEG tube placement than nonteaching hospitals (0.94% vs 0.73%, OR: 1.28, 95% CI 1.18 - 1.4, P<0.001)
- Post propensity match, teaching hospitals had lower complication rates of pneumonia (aOR: 0.78, 95% CI 0.65 - 0.93, P=0.006), respiratory failure (aOR: 0.83, 95% CI 0.7 - 0.98, P=0.03), blood transfusion (aOR: 0.78, 95% CI 0.65 - 0.93, P=0.007), and shock (aOR: 0.83, 95% CI 0.7 - 1, P=0.046)After matching to controls, the mortality rate of HCC with HT was significantly lower at 7.6% versus 9.9% without HT (aOR 0.76, 95% CI 0.67–0.86, P<0.001)
- Teaching hospitals had a higher median LOS (23 vs 22 days, aIRR: 1.13, 95% CI 1.04-1.21, P=0.002)

Conclusion

- PEG tube placement in ascites patients is associated with fewer severe complications at teaching hospitals compared to nonteaching hospitals
- Further review is needed to understand the drivers of worse outcomes in nonteaching hospitals in order to ensure consistent care and adherence to best practice