

TRENDS IN COST, LENGTH OF STAY, AND MORTALITY IN HOSPITALIZED CELIAC DISEASE PATIENTS IN THE GERIATRIC POPULATION

Authors: Anmol Mittal MD, Mansi Patel MD, Faiz Afridi MD, and Sushil Ahlawat MD

BACKGROUND

Celiac disease typically affects young adults, however, there has been an increasing prevalence in the elderly. The median age of diagnosis is between the 4th and 6th decade of life and due to its complicated clinical course and delayed risk of malignancy, a significant portion of healthcare costs are attributed to Celiac disease. As both mean life expectancy and incidence of celiac disease increase, the healthcare costs and mortality attributed to a dilatory diagnosis of celiac disease remain poorly understood.

METHODS

Nationwide Inpatient Sample (NIS) 2001-2013 database was queried for a primary diagnosis of Celiac disease using International Classification of Diseases, Ninth Revision (ICD-9) codes. Age was stratified using 65 years as cut off. A one-way analysis of variance (ANOVA) test with linear trend analysis was used to compare the mean length of stay (LOS), mean hospitalization cost, and mortality.

RESULTS

An ANOVA was used to determine significance for the trends. The mean (M) mortality rate was 0.8%, the standard deviation (SD) was 8.9%, and the sample size (n) was 30,915. Mortality decreased from 3.9% to 0.3%. For hospital charges M=\$28,219, SD =\$34,204, n=30,423. The average increased from \$14,959 to \$37,201. Finally, the LOS was found to have a M=4.5, SD = 5.6, n=30,942. The LOS decreased from 5.7 days to 4.0 days.

CONCLUSION

In the geriatric population, a delayed diagnosis of celiac disease leads to greater LOS and increased healthcare costs compared to the average population. However, the trend demonstrates a shorter LOS and diminishing morality rate. The rise in costs is likely multifactorial and additional factors contributing to the hospital course including barriers to diagnosis, atypical presentations, lag from diagnosis to treatment, and additional comorbidities need to be further studied to decrease costs associated with Celiac disease in the geriatric population.

