ABSTRACT

Once thought to be a rare disease, there is growing recognition that non-CF bronchiectasis (BE), either by itself or combined with COPD, represents a growing burden on the US healthcare system. Past work does not clearly describe the burden of comorbid non-CF BE and COPD.

METHODS

A retrospective cohort design and data from a healthcare claims repository (2009-2013) were employed:
- Data were deidentified and thus exempt from IRB approval.
- Source population comprised all persons who had a diagnosis of bronchiectasis (ICD-9-CM 491.xx, 492.x, 496) or COPD (ICD-9-CM 491.xx, 492.x, 496) during the period 2009-2013 were selected for inclusion in the study population.
- For purposes of comparison, three cohorts from the study population were identified: BE in the absence of COPD (BE-only), COPD in the absence of bronchiectasis (COPD-only), and BE with concomitant COPD (COPD+BE).
- All-cause healthcare utilization and expenditures during the referent year were annualized, and then summarized using means and corresponding 95% CIs.

RESULTS

The study population included 17,917 patients with BE-only, 498,653 patients with COPD-only, and 13,205 with combined BE and COPD.

Levels of all-cause healthcare utilization and expenditures were:
- Lowest for the BE-only cohort.
- Somewhat higher for the COPD-only cohort.
- Substantially higher for the COPD+BE cohort.

The annual increase for COPD+BE vs. COPD-only cohorts:
- Mean number of acute-care hospitalizations per year was 32% higher.
- Number of hospital days per year was 40% higher.
- Hospital expenditures were 27% higher.
- Total healthcare expenditures were 31% higher.

DISCUSSION

Recent work has described the negative clinical impact of comorbid COPD+BE. This is understood in the context of a repeated cycle of inflammation, exacerbation, and downward decline in patient status. Our data show that patients with comorbid COPD+BE have more healthcare utilization and higher expenditures than patients with COPD alone.

Early intervention in such patients has the potential to reduce the frequency of exacerbations and associated costs. Therefore, early intervention has the potential to result in reduced economic burden.

CONCLUSIONS

- Levels of healthcare utilization and expenditures are high among patients with COPD and BE in current US clinical practice.
- Clinical and economic burden is notably high among patients with the combination of COPD and BE, emphasizing the importance of identification and treatment of these individuals.

REFERENCES