

Auditing the impact of an interventional service on index presentations of lung cancer patients with central airways obstruction

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Background

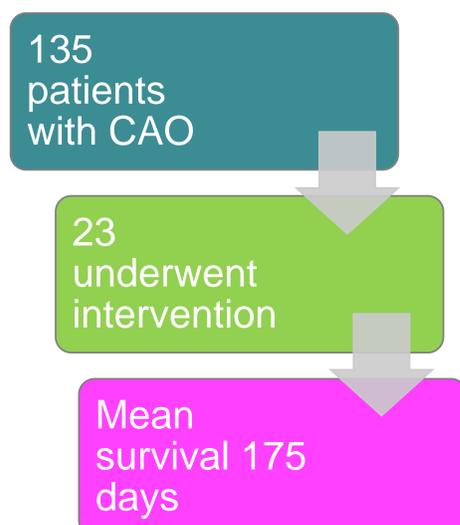
In 2014 a baseline audit of endobronchial interventions in new lung cancer patients with central airways obstruction (CAO) was conducted to inform on interventional pulmonology services in our tertiary university hospital. Following a series of service developments, a repeat audit was conducted.

Methods

Service changes included increased awareness of CAO, auditing and streamlining of the referral pathway, and modernisation of interventional equipment. To assess impact, new lung cancer patients presenting in 2019 and 2020 with CAO were identified. Demographics, clinical details and outcomes were recorded. Comparisons were made across the time periods.

Results

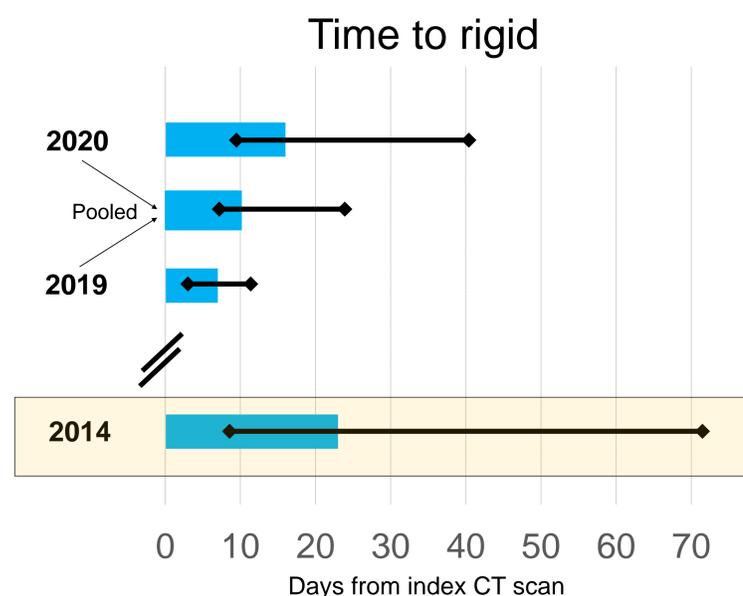
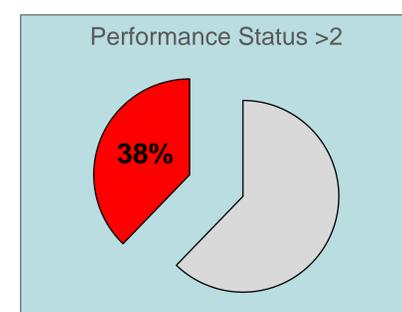
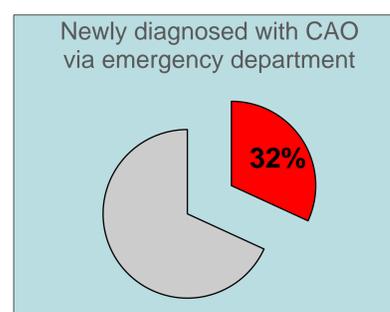
In the pooled data set, 135/1063 (12.7%) patients had CAO at presentation with 85/135 (63%) having >50% obstruction. The median age was 70.6[63.75-76.89] years and 60/135(44)% were male. Index presentation via the emergency department occurred in 32% (43/135) of patients.



Performance status was <3 in 62% of cases and 61.5% had Stage IV disease. Intervention with rigid bronchoscopy was performed in 23/135(17%) cases overall. Across the group the mean survival was 175 days (SD 200).

Incidence of CAO across the period was stable (13.2% 45/342, 11.6% 43/370 and 14.8% 52/351) ($p=0.45$), with no significant difference in survival. Rates of endobronchial intervention in patients with severe disease were 7/33(21.2%), 6/21 (28.6%), 8/31 (25.8%) in 2014, 2019 and 2020 respectively ($p=0.82$).

Median time from index diagnostic CT scan to rigid bronchoscopy was 23[9-72] days, 7[4.75-11] days and 16 [10-40.5] days in 2014, 2019 and 2020 respectively. Compared to 2014, the pooled 2019/2020 cohort had a non-significant shorter time to intervention - median 10 [7-25] days versus 23 [9-72] days ($p=0.237$).



Conclusions

The interventional service shortened time to endobronchial treatment but did not increase the number of interventions. Further work on decision making will help standardise approaches to this mixed cohort of patients.

