Mortality risks associated with Barrett’s oesophagus

Sirs, We read with interest the article by Moayyedi et al. analysing cause-specific mortality rates in a cohort of UK patients with Barrett’s oesophagus (BO). We would like to bring to the authors’ attention our recent article similarly analysing mortality rates in another BO cohort in the north of England. In our analysis, we did not observe any increased risk of ischaemic heart disease [standardized mortality ratio (SMR) = 1.22, 95% CI = 0.79–1.80] or myocardial infarction (SMR = 1.15, 95% CI = 0.80–1.61), compared with the higher estimates of Moayyedi et al. for ischaemic heart disease compared with left ventricular failure (male SMR = 1.86, 95% CI = 0.97–2.75; female SMR = 2.05, 95% CI = 1.05–3.06). Regarding all-cause mortality, our study found only a small but statistically significant increased risk (SMR = 1.21, 95% CI = 1.06–1.37), which is in quantitative agreement with other estimates from the UK (hazard ratio = 1.37, 95% CI = 1.12–1.66) and the Netherlands (SMR = 1.46, 95% CI = 1.16–1.82). The much higher all-cause mortality estimates of Moayyedi et al. (male = 5.52, 95% CI = 4.66–6.38; female = 4.55, 95% CI = 3.57–5.52), are in further contrast to an Irish study which found the risk unaltered.

Although we prospectively followed fewer BO patients compared with Moayyedi et al., it is ultimately the number of deaths which determines the statistical power of a SMR analysis, for which our studies have approximately equal numbers. We also find that the conclusions of Moayyedi et al. require some clarification. They conclude that: ‘Patients with Barrett’s oesophagus die more commonly of bronchopneumonia and ischaemic heart disease compared with oesophageal adenocarcinoma’. Given the absolute numbers of deaths in these categories, this is true, as it would be for cohorts of almost every other precancerous lesion; mortality risks associated specifically with BO are indicated by SMRs, while the absolute numbers of deaths merely reflect the underlying mortality risks of the general population. Whilst it is important to acknowledge the relatively low absolute risk of death from oesophageal adenocarcinoma in BO, we would emphasize that the overall evidence currently available suggests that BO has little, if any, effect on the risk of other specific causes of death when compared with the population.

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Mortality risks associated with Barrett’s oesophagus: authors’ reply

Sir, We are grateful for the comments of Cook et al. but disagree with their conclusion that ‘the overall evidence currently available suggests that Barrett’s oesophagus (BE) has little, if any, effect on the risk of other specific causes of death when compared to the population’. Their data suggest an increase in all-cause mortality as do others with an overall increase in standardized mortality rate of between 15% and 46%. Most clinicians would feel this was clinically important.

The situation may be more pronounced as BE predominantly affects white men of high socioeconomic status. Population studies can adjust only for a very limited number of confounding factors and high socioeconomic status is associated with a decrease in standardized mortality ratio (SMR). It is possible therefore that population studies evaluating BE will be biased towards the null hypothesis and that the increase in SMR may be underestimated. We hoped to address this partly, by studying a smaller geographical area, which might reduce the influence of confounding factors. We accept, however, that our study is still relatively small in size with a limited duration of follow up as we acknowledged in our discussion. We also acknowledge that in narrowing the population, our data may be less generalizable, which could explain the high SMRs we observed.

As far as specific causes of mortality are concerned, we agree that data are conflicting but felt that it was important to publish our data so that in time, a fuller picture can emerge as to what are the individual causes that drive the increase in overall mortality. We believe that data suggest that BE patients are at an increased risk of all-cause mortality and clinicians should evaluate the whole patient and not just their Barrett’s mucosa.

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REFERENCES