AN ANALYSIS OF THE CAUSES OF DEATH IDENTIFIED AT AUTOPSY IN THE OBESE POPULATION

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Background: Obesity is the fifth largest risk factor impacting on global mortality and its incidence is rising. Contribution of obesity to death rates is only measurable if included on death certificates. Obesity causes deaths directly e.g., obesity cardiomyopathy (OCM), and indirectly as a risk factor for coronary heart disease (CHD) and other conditions. In this study, we investigate the reporting of obesity and its inclusion in death certificates in a single centre coronial autopsy service.

Methods: Retrospective review of autopsy reports in the Oxford pathology database across a three-year period (2014-16). Autopsy reports were reviewed for height, weight & BMI, prevalence of obesity & obesity-specific conditions, all-cause mortality, CHD related mortality and mean age of death from CHD in different BMI categories.

Results & Discussion: Height and weight were omitted without adequate reason; in 14% of reports analysed (n=1,514). Obesity is poorly recognized on death certificates were present (just 5.1% on overall) identification of OCM in the morbidly obese is rising; 6.6% compared to 2.0% in the previous largest study to date. A total of 739 (40%, n=1,868) autopsies were carried out on obese individuals. Obesity specific pathology were included in death certificates in 0.2% of obese (BMI 30-35), 7.4% of severely obese (BMI 35-40) and 25.7% of morbidly obese (BMI>40) individuals. CHD accounted for 26.4% of deaths in morbidly obese individuals and 20.7% of deaths in those of ideal BMI. Strikingly, morbidly obese individuals died from CHD on average nine years earlier (mean age of death 68 years) compared to those of ideal BMI, mean age of death 77 years (p=0.000004, 95% CI: 5-13); this effect was not accounted for by concurrent presence of diabetes or hypertension.

Conclusions: This study links obesity to earlier death from CHD and indicates that obesity is under recorded on death certificates by pathologists.

Biography
Anna Dunnigan studied pre-clinical medicine at the University of Cambridge, and clinical medicine at the University of Oxford. She is originally from London, and presently works as a foundation doctor at Milton Keynes University Hospital, which is part of the Oxford Deanery. Along with her interests in pathology, Anna has a strong interest in education, and is currently studying long-distance degree in Medical higher Education in the University of Dundee. She mainly focuses in patient safety and has undertaken numerous quality improvement projects in this area, presented at both regional and national level.

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