Factors affecting mortality in a large cohort study with special reference to oral contraceptive use

Vessey M, Yeates D, Flynn S. Contraception 2010;82:221–229

Women often express concern about the potential long-term health effects of taking combined oral contraceptives (COCs), particularly following reports of risks in the media, so data based on long-term follow-up of COC users are always a welcome tool for counselling women on contraceptive choices.

This paper provides a report on mortality in a cohort of over 17,000 women recruited to the Oxford-Family Planning Association contraception study between 1968 and 1974. Mortality data from this study have been published previously, most recently in the *Lancet* in 2003, but this recent paper is an update that covers almost twice as many deaths.

At recruitment, the women were aged between 25 and 39 years, were white, British, married and were users of either COCs or non-hormonal contraceptives. They were followed up annually, either to the age of 45 years for COC users of less than 8 years, or until 1994 for either longer-term COC users or non-users. After 1994, information about deaths was obtained from National Health Service (NHS) central registries.

The results make interesting reading, not just for the influence of COC use but also other factors that were studied. Smoking and increased body mass index were poor prognostic factors, and were associated particularly with cancer and circulatory disease. The relative risk of mortality was lower in women who were COC users, and specifically there was no increased risk of mortality from breast cancer or circulatory disease. There was considerably reduced risk of mortality from uterine and ovarian cancers, and this persisted even 20 years after last COC use. The risk of cervical cancer mortality was greater in COC users, although numbers were small. The paper compares its results to two other large cohort studies and confirms generally very similar findings.

Overall, COC use did not have an adverse effect on overall mortality and, if anything, appeared to be protective. The women in this study were mainly using 50 μg estrogen pills and, as the authors acknowledge, it may not be possible to extrapolate the findings to the lower COC dosages used today. Furthermore, the study only provides data on women with a quite narrowly defined set of demographics and may be less applicable to other populations. However, this paper generally provides very reassuring reading, and is a valuable addition to the growing body of data that enable us to discuss risk reliably with potential COC users in the clinic.

Reviewed by Ellen Golightly
Clinical Research Fellow, University of Edinburgh, Edinburgh, UK

Competing interests None.

Provenance and peer review Commissioned; internally peer reviewed.