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Mortality trends in the United States are consistent with British case-control studies which have indicated an association of oral contraceptive usage with venous thromboembolism and possibly coronary thrombosis. The trends, however, do not reflect the reported association with cerebral thrombosis.

ORAL CONTRACEPTIVES AND MORTALITY TRENDS FROM THROMBOEMBOLISM IN THE UNITED STATES

Robert E. Markush, M.D., M.P.H., and Daniel G. Seigel, S.D.

Introduction

IN the United States about 15 per cent of married women under 45 years of age were using oral contraceptives in 1965, four years after the drugs were released to the general market.¹ Three case-control studies in England, two of morbidity^{2,3} and one of mortality,⁴ have suggested that women using oral contraceptives have an appreciably increased risk from superficial phlebitis, pulmonary embolism, deep vein thrombosis, and possibly cerebral thrombosis. The large relative risks reported in the British studies combined with the extensive use of oral contraceptives in the United States would lead one to expect increases in selected categories of mortality. Trends in national mortality statistics provide a readily available source of data to determine whether these increases have, in fact, occurred. Although there are major problems in the use of mortality data for the study of etiologic relationships, they are not the same set of problems as those which beset case-control studies. This report, therefore, supplements the case-control studies with an analysis of US mortality trends since 1951 for underlying causes of death that

are related to thrombosis or thromboembolism.

Method

The categories of the International Classification of Diseases (ICD), Seventh Revision, included in the report (see Table 1) represent 7 per cent of all 1965 US deaths of women age 15-44. The selection of cause of death categories which represent the thromboembolic disorders is somewhat arbitrary.⁵ Not included are causes of death, such as those involving surgery and trauma, in which factors other than disorders of the clotting mechanism probably have an overwhelming influence on incidence and survival.

The analyses were based on published and unpublished data from the US National Center for Health Statistics.⁶ For the cause of death categories involving small numbers, only data on the numbers of deaths since 1960 are included in this report. Analyses on the three larger groupings, 332, 420, and 460-8 are based on mortality rates from 1951 through 1966 (Table 2).

The 460-8 ICD group includes several categories not directly related to thrombosis or embolism: 460, 461, 462, 467.0,