

thrombosis and embolism occur more commonly in mothers who are in the higher age and parity groups or who have had an operative delivery or a stillborn baby. Such women are less likely to breast-feed and more likely to have lactation inhibited. So it should not have occasioned great surprise when it was reported from Cardiff last year that the administration of stilboestrol to inhibit lactation favoured the development of thromboembolism, to the extent of a tenfold increase in incidence in mothers aged 25 or more (3). This week Professor T. N. A. Jeffcoate and colleagues at Liverpool report in the *B.M.J.* at page 19 a careful analysis of 111 consecutive cases of puerperal thromboembolism in two maternity hospitals during 1953-66. They found that in women whose lactation was inhibited by oestrogens the incidence of puerperal deep venous thrombosis and embolism was increased, threefold over all the cases and sixfold when delivery was operative, as compared with similar mothers who breastfed their babies. Increasing age of itself brought increasing hazard, with newly delivered women of 35 or more carrying the highest risk. And assisted delivery further increased the chances of thromboembolism, more so if lactation was inhibited, so that a woman of 35 or over delivered operatively had a ten-times greater risk if her lactation was suppressed with oestrogens than if she breast-fed.

These are weighty statistics, but there are some noteworthy discrepancies between the Cardiff and the Liverpool figures. At Cardiff the increase in puerperal thromboembolism imputed to oestrogen suppression of lactation was more than double that reported from Liverpool, where, however, the routine dosage of oestrogens was much lower. In the Cardiff series the inhibition of lactation in women under 25 who had operative deliveries entailed no extra risk, but in the Liverpool series it did. Indeed the Liverpool analysis suggests that increasing age and major operative intervention at delivery are at least as important as the hormonal suppression of lactation in increasing the chances of thromboembolism. This view is supported by the fact that despite a national decline in breast-feeding the incidence of puerperal thromboembolism and the number of fatalities from it are not rising. As well as differences between results from the two cities there are some between the two hospitals in the Liverpool series. In one the incidence of puerperal thromboembolism was less than two-thirds what it was in the other; and, while in one hospital an incidence rising with age was found only in non-lactating women, in the other increasing age had an adverse effect on both breast-feeders and non-breast-feeders.

Further inquiries into these important questions are clearly needed, and it is good to know that controlled prospective studies have already begun. As well as taking note of age, parity, previous thromboembolic attacks, and operative delivery the studies should also examine hypertension, obesity, smoking habits, and whether the patient received general anaesthesia after delivery (for example, for manual removal of the placenta) or in the puerperium (for example, for tubal ligation). Furthermore, some women develop thromboembolism either after discharge from a maternity hospital or after delivery outside hospital. Compulsory notification of puerperal thromboembolism, at least in localities where these studies are being made, would result in much more reliable statistics; failing which, figures from general hospitals containing maternity units will be more comprehensive than those from maternity hospitals. Secondly, research should be continued into the effects of different dosages of different oestrogens, synthetic and natural, not only on the blood factor IX (4) and platelets (5) but also on other factors concerned with blood coagulation, especially in newly delivered women. Thirdly, the efficacy and acceptability of other, non-hormonal, methods of inhibiting lactation (6, 7) should be examined and confirmation sought on whether the absence of lactation of itself increases