cannot always be proved despite the common association with poor oral hygiene, alcoholism, and fits, but at least the abscess is secondary to pneumonia. A. J. Block and colleagues\(^6\) note the declining frequency of this disease and could find only 79 examples in a recent ten-year review of patients admitted to the Johns Hopkins Hospital. Experience in Britain must be similar owing to the early treatment with antibiotics of patients threatened with pneumonia.

Though surgical treatment was formerly to be preferred, the management of this formidable disorder is now almost entirely by medical means. The choice of antibiotic is influenced to some extent by the nature of the bacterial flora in the sputum. Often no pathogens can be isolated, especially if antibiotics are given before bacteriological tests are done. Among the aerobic organisms that may be found are pneumococci, streptococci, klebsiellae, and miscellaneous Gram-positive and Gram-negative bacteria. Anaerobes should always be sought and are usually present when the sputum is foetid. In practice penicillin is the antibiotic of choice, given in a dose of 4-8 million units a day for three to six weeks according to the severity of the infection, with a smaller dose subsequently if healing is delayed. Bronchoscopy is usually desirable, to exclude other disease such as carcinoma. Postural drainage and the inhalation of warm, humidified air are valuable accessory measures. Surgical resection has little or no place during the first few weeks of treatment, unless a suspicion of carcinoma arises. Later it may be necessary for chronic sepsis in a destroyed lung with bronchiectasis, or possibly for recurrent infections of an open cavity which persist despite prolonged medical treatment.

Metabolic Effects of Oral Contraceptives

At a symposium held last September by the Associations of Clinical Pathologists and of Clinical Biochemists on the biochemical consequences of oral contraceptives disquiet was expressed about the untoward consequences of taking these hormones. It is valuable, therefore, to have the experts' conclusions published for more deliberate consideration in a supplement to the *Journal of Clinical Pathology*.\(^1\) It brings into sharp focus one aspect of the control of reproduction, reviewed in a more general way this year in the British Medical Bulletin.\(^2\)\(^3\)

The ten contributions in the supplement cannot range over all the effects of oral contraceptives, but they do explore in some detail the main biochemical consequences. Not surprisingly the vascular effects feature prominently. Much of the definitive work on them has been done in Great Britain by Professor Richard Doll, F.R.S., and his colleagues, one of whom, Dr. M. Vessey, gives an account of the epidemiological relationship between oestrogen-progestogen combinations and venous thrombosis, pulmonary embolism, and cerebral thrombosis. These ill effects are the most disturbing feature of the use of oral contraceptives, and Vessey does well to set the risks in context by comparing them with death rates in a similar population from pregnancy, from cancer, and from motor accidents. Dr. Vessey and Professor Doll, together with Drs. A. S. Fairbairn and G. Glober, report in the *B.M.J.*


this week (page 123) on a further aspect of the relation between oral contraceptives and the risk of thromboembolism. They found that the risk of its occurring after surgical operation was raised some three to four times among women taking oral contraceptives before the operation.

L. Poller's contribution to the symposium complements Vessey's by showing what changes are brought about in blood clotting factors by oral contraceptives, and he observes with admirable restraint that they do not appear to be a desirable side-effect. The thrombotic hazards of the pill are further explored in another article on the effect of oestrogens on platelet action, and members of the Medical Research Council's unit in Glasgow discuss the increase in blood pressure in some women that may result from the effects of oral contraceptives on plasma renin and renin substrate.

It is possible that many of the metabolic effects of oral contraceptives—for example, their effect on carbohydrate metabolism—follow upon their effect on cortisol metabolism. C. W. Burke records the evidence that oestrogen-containing oral contraceptives increase the blood concentration of both free and bound cortisol. He is critical of the idea that this finding implies an increased overall exposure of the tissues to cortisol, and he points out that free cortisol excretion in the urine over 24 hours is only trivially increased by treatment with oral contraceptives. Nevertheless, V. Wyna and J. W. H. Doar in their contribution attribute the impaired glucose tolerance of women on the pill to the raised plasma cortisol, and it is possible that other effects on liver function recorded elsewhere in the supplement are related to altered corticosteroid metabolism.

In this publication the oestrogens are blamed time and again for unwanted side-effects. Thus oral contraceptives consisting of progestogens only should not be hastily condemned. But at best they are a stopgap measure, much less effective as contraceptives than the oestrogen-progestogen mixtures. The searching examination which the symposium devotes to the side-effects of oral contraceptives does not make a case for discontinuing them, but it does imply that the present ones should be replaced as soon as equally simple and effective means can be devised which are less of an endocrinological insult.

Neonatal Necrotizing Enterocolitis

Necrotizing enterocolitis is a well-recognized but incompletely understood disorder of early infancy, affecting particularly premature infants and those who have had exchange transfusions.\(^1\)\(^2\)\(^3\) It usually begins in the first week of life, though cases have occurred in later infancy.\(^4\)

The infant will commonly have suffered from birth asphyxia, hyaline membrane disease, apnoeic attacks, or jaundice. Feeds begin to pool in the stomach, and the baby may vomit; the vomit or gastric aspirate become bile-stained. The abdomen distends and bowel sounds may disappear. (These early signs are those of intestinal obstruction, which has many possible causes in the neonatal period.)\(^5\) The baby sometimes passes no stools but, more frequently, small amounts of blood-stained stool. Frank diarrhoea is rare. In severe cases perforation of the ileum or colon may occur, leading to peritonitis, shock, generalized sepsis, and death. The mucous membrane of the gut, especially in the terminal ileum and ascending colon, undergoes haemorrhagic necrosis.\(^1\)\(^6\)\(^7\) Areas of mucosa may slough off, and in other areas there are submucosal gas-filled cysts.

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\(^3\) British Medical Journal, 1970, 1, 449.