

Treatment with cholecalciferol in these circumstances means giving relatively large doses (2000 to 10 000 units daily⁵), but in view of the presumed hepatic hydroxylation defect 25 HCC itself might prove more effective.

Prolonged intrahepatic cholestasis is not common in young babies, and of more general concern in Britain at present is the resurgence of rickets in our Asian immigrant population. Osteomalacia is not uncommon in Asian mothers; and hypocalcaemia and craniotabes, and less commonly other evidence of rickets, are seen in their newborn babies.^{9 10} Late onset respiratory distress due to rickets in these infants does not appear to have been described, but quite possibly an increased awareness of this possibility may bring to light such cases. More important, neonatal rickets would be made rare again if obstetricians looked routinely for osteomalacia in Asian mothers attending antenatal clinics and made sure that they had an adequate vitamin intake.

¹ Davidson, L, Merritt, K, and Chipman, S, *American Journal of Diseases of Children*, 1936, **51**, 1.

² Jeans, P C, *Journal of the American Medical Association*, 1936, **106**, 2066.

³ Hillman, L S, and Haddad, J G, *Journal of Pediatrics*, 1974, **84**, 742.

⁴ Hillman, L S, and Haddad, J G, *Journal of Pediatrics*, 1975, **86**, 928.

⁵ Yu, J S, Walker-Smith, J A, and Burnard, E D, *Medical Journal of Australia*, 1971, **1**, 790.

⁶ Kobayashi, A, et al, *Archives of Disease in Childhood*, 1974, **49**, 641.

⁷ Glasgow, J F T, and Thomas, P S, *Archives of Disease in Childhood*, 1977, **52**, 268.

⁸ Boissière, H, et al, *Annales de Pédiatrie*, 1964, **11**, 367.

⁹ Ford, J A, et al, *British Medical Journal*, 1973, **3**, 211.

¹⁰ Moncrieff, M, and Fadahunsi, T O, *Archives of Disease in Childhood*, 1974, **49**, 810.

trite rather than an electronic disintegrator. The Russian apparatus produces an alarming muffled noise, like a machine gun or road drill and somewhat daunting for the patient if he is not anaesthetised. In contrast, in most urologists' hands lithalopaxy is quick and safe.

In times of financial stringency it is rarely justifiable to buy equipment that will be used only occasionally and which requires regular servicing. In countries such as Britain the electrohydraulic disintegrator has no clear advantages over other techniques—and in particular it does not solve the problem of ureteric stones. The invention that the lithotomist really needs is a device to break up ureteric stones and so avoid ureterolithotomy and the injudicious use of stone extractors.

¹ Mitchell, M E, and Kerr, W S Jr, *Journal of Urology*, 1977, **117**, 159.

Birth weight

In countries such as Britain mothers are choosing to have fewer babies and certainly do not expect to lose a child at birth or in the perinatal period. Along with obstetricians and paediatricians, mothers are increasingly concerned about the quality rather than the quantity of children. The key to lowering of perinatal death rates and the reduction of handicap in survivors is the avoidance of low birth weight. Small size at birth threatens the life of the child and prejudices growth and nonverbal intelligence among apparently normal survivors.¹ From their study of birth, family, and development in Newcastle upon Tyne Neligan and his colleagues¹ had no doubt about the advantages of high birth weight—the short-term advantage of lower perinatal mortality was accompanied by long-term beneficial effects on the physical and mental growth of survivors.

Some babies born at or near term are twice the weight of others. There is no shortage of theories to explain why this should be, but there are relatively few hard facts. Birth weight has been studied extensively because of the guide it gives to the viability of the infant, but the causes of impaired fetal growth are still poorly understood.² Though every fetus has a growth potential endowed by its own genes, much that happens during its intrauterine lifetime influences the final outcome. Clearly the length of gestation matters: the shorter the gestation, the more likely the baby is to be under weight at birth. It is important that the fetus be anatomically normal. Sex has an influence on birth weight—the average baby boy at term is 140 g heavier than the girl.³

Birth order also has a significant effect on birth weight: on average first babies are 100 g lighter at term than second babies.³ There is no clear agreement about what happens after the second baby, though in Malta Camilleri and Cremona⁴ found a convincing progression of birth weight with increasing parity up to ten. Campbell and MacGillivray⁵ have offered physiological reasons for the better performance of multigravidae: women have a larger increase in serum volume in a second as compared with a first pregnancy, and this seems to be related to the production of heavier babies. The maximum expansion of serum volume in the first pregnancy is at 34 weeks or later but as early as 30 weeks in the subsequent pregnancy. Campbell and MacGillivray believe that it is to the advantage of the fetus that the greatest increase in serum volume should be achieved by the 30th week, provided the level is maintained. Their view is that

Cracking urinary bladder stones

Vesical calculi are not common in Britain today, and when they do occur the cause is usually outflow obstruction or a foreign body, such as a stitch, in the bladder. In the past bladder stones were relatively common in northern Europe, and they still are in many parts of the world where diet is inadequate and children suffer from renal calculi.

In the last century the ancient operation of cutting for stone was superseded by transurethral lithalopaxy using a lithotrite. Blind crushing of bladder stones is still done today, and many urologists believe the technique is less traumatic than the use of the modern, rather cumbersome cystoscopic lithotrite. Interest has revived recently¹ in an apparatus invented in the 1950s by a Russian engineer, L A Yutkin. Urat 1 is an electronic stone disintegrator, in which a generator converts a current of 220 volts to a low frequency high-impulse discharge; this is passed down a cystoscope, delivering shock waves (in the full bladder) of sufficient force to make stones disintegrate. Undoubtedly the apparatus is highly effective, and it has an obvious place in countries where vesical calculi are common. Patients with stones may be treated as outpatients without a general anaesthetic, while the device can be used with safety by any surgeon who is familiar with a cystoscope.

There are, however, disadvantages. The apparatus is expensive and needs repeated servicing as wear occurs at the tip of the probes. The latter are rather large (10 French), so that the operation cannot be done through small cystoscope sheaths. When transurethral treatment of stones is indicated most urologists still seem to prefer to use a litho-