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Pointers

Ulcerative Colitis: A review of the management and outcome of 258 severe attacks of ulcerative colitis shows the value of early surgery (p. 703). Leader on p. 698.

Low-birth-weight Infants: When coagulation deficiencies exist on the first day of life a much higher percentage of brain damage occurred than in those infants with a better coagulation status (p. 707).

Leucocyte Typing in Kidney Transplants: The predictability of leucocyte typing in kidney transplants was assessed, and where donor had identical HL-A antigens to the recipient results were good and highly predictable (p. 709).

Therapeutic Starvation in Obesity: A study of 25 patients suffering from gross refractory obesity suggested that prolonged starvation may be of value in young patients (p. 712).

Epigastric Pain in Duodenal Ulcer: A group of patients with ulcers and epigastric pain had an attack of identical pain after perfusion of the lower oesophagus with dilute acid (p. 714).

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Today's Drugs: Immunosuppressive drugs (p. 730).

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Prognosis in Hypertension

In any group of individuals the blood pressure (both systolic and diastolic) is always found to be distributed widely about a mean. This distribution is not equal, for more people have a high pressure than a low one. With increasing age the mean pressure for either sex increases, some people showing little or no rise, and others a much greater increase. Nevertheless, this increase tends to occur more rapidly in people whose pressure is already above the average—a feature known as "acceleration."¹ The life assurance experience of men and women aged 30-59 on proposal,² surveyed after one to 20 years, showed an excess mortality in people with only a slight rise in diastolic pressure. Thus the mortality rates of two men aged 35 and 55, each with pressure 140/90 mm. Hg on entry, were found to be 200 and 150, respectively, compared with a standard risk of 100, while the comparable figures in women were 136 and 108. Moreover, there was a great rise in the risk for a man of 35 when his blood pressure was 150/100 mm. Hg. The standard risk was 500, while that of death from disease of the heart or circulation was 300, and of stroke 600. On average, this man would die 16 years short of the predicted age of 76 years.

Clinical studies³⁻⁵ in untreated patients of all ages with diastolic pressures of over 100 mm. Hg have shown that the mortality rate rises with the blood pressure, reaching 95% in the first year in patients with malignant or accelerated hypertension. At all ages and levels of pressure the prognosis remained better in women. Hence increased diastolic blood pressure clearly reduces life expectancy, especially in men and in younger people.

That the prognosis is influenced by treatment and by the presence of complication has been known since the 1950s. Untreated patients with accelerated hypertension in whom renal function was good at the time of diagnosis survived longer than those in whom it was already impaired.^{5,6} Treatment with hypotensive drugs greatly improved the outlook in accelerated hypertension.⁷ More recently, in patients of all ages and both sexes with a diastolic pressure between 120 and 149 mm. Hg,⁸ male patients of all ages with a diastolic pressure between 90 and 129 mm. Hg,⁹ and in patients of both sexes aged between 40 and 69 years with vascular changes in the retina only,¹⁰ hypotensive therapy has been shown to improve the prognosis. In the latter study the presence of complications—such as coronary artery disease, congestive heart failure, cerebrovascular disease, and renal defect—reduced the expectation of life. Treatment also improved the prognosis in these cases, owing to a reduced incidence of renal failure and cerebrovascular accident¹⁰⁻¹²—especially haemorrhage.¹³ Nevertheless, death from myocardial infarction seemed uninfluenced by treatment^{11,12,14} and occurred frequently in patients with well-controlled hypertension.

In the past ten years, owing to the introduction of the adrenergic neurone blocking drugs and the wider use of thiazide diuretics, the treatment of hypertension has become easier for the physician and more tolerable for the patient. It is therefore encouraging that A. Breckenridge and his

colleagues have found that the death rate at five years was lower in patients referred between 1960 and 1967 than between 1952 and 1959.¹⁵ Indeed, up to a level of diastolic pressure before treatment of 140 mm. Hg the survival rate remained constant between 80 and 90% in 1960-7. Not only was it 10-20% higher than in the previous period but it contrasts strongly with the close relationship between diastolic pressure and the five-year mortality in the untreated patient. Accelerated hypertension continued to have a poor prognosis, especially when kidney damage was present. Possibly the control of blood pressure was poorer in patients who died during 1952-9, but throughout the study patients who died of uraemia and stroke were no more likely to have been in poor control than those dying of myocardial infarction. Of the deaths 7% from the earlier group and 27% from the later group occurred as a result of myocardial infarction. In this study, as in others, the prognosis at all levels of diastolic pressure before treatment was better in women.

The need for treatment in the individual patient with hypertension is dictated by the prognosis without treatment, the effect of treatment on prognosis, and the inconvenience and hazard of treatment. A clear case can now be made for treatment in men and women under 65 years who have sustained diastolic hypertension with retinal changes or with complications, and in any patient with accelerated hypertension. The difficult area is in mild hypertension (diastolic pressure not above 95 mm. Hg) in patients without retinal changes—especially in men under 50, in whom the prognosis is poorer. Conclusive evidence is still lacking to support the view that treatment in such cases improves the prognosis. Nevertheless, as treatment of more severe hypertension has failed to reduce the mortality from myocardial infarction,

many hope that the effective reduction of mild diastolic hypertension at an earlier age will delay the onset of degenerative vascular disease and increase the expectation of life.

Obvious problems arise in identifying the young, mild, symptomless hypertensive. The place of health screening programmes is still debatable, but no doctor should miss an opportunity to record the blood pressure of a young or middle-aged patient who is a rare visitor to the surgery. Once hypertension has been discovered, the further difficulty arises of how best to enlist the patient's co-operation without arousing his fears. The greatest difficulty of all is to record the real pressure, increasingly difficult as anxiety grows, and often possible only on brief admission to hospital. It is no longer consistent with good medical practice to run away from these difficulties.

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- ⁴ Sokolow, M., and Perloff, D., *Circulation*, 1961, 23, 697.
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- ⁷ Harrington, M., Kincaid-Smith, P., and McMichael, J., *British Medical Journal*, 1959, 2, 969.
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- ¹¹ Smirk, F. H., and Hodge, J. V., *British Medical Journal*, 1963, 2, 1221.
- ¹² Hood, B., Aurell, M., Falkheden, T., and Bjork, S., in *Antihypertensive Therapy*, ed. F. Gross, pp. 370-385. Springer, New York, 1966.
- ¹³ Aurell, M., and Hood, B., *Acta Medica Scandinavica*, 1964, 176, 377.
- ¹⁴ Bauer, G. E., *Medical Journal of Australia*, 1966, 1, 698.
- ¹⁵ Breckenridge, A., Dollery, C. T., and Parry, E. H. O., *Quarterly Journal of Medicine*, 1970, 39, 411.

Urgent Surgery in Ulcerative Colitis

At what stage should conservative management of ulcerative colitis be abandoned? Unequivocal evidence of perforation will make surgery mandatory, but failure of medical treatment is relative. Judgement is difficult: on the one hand, there is a natural reluctance to submit an extremely ill patient to a major surgical procedure (nothing short of total excision of the colon will suffice in this situation), while on the other hand there is the fear that the patient, already in a desperate condition, may deteriorate still further.

Figures published from large centres do give some guidance in management. In considering statistics one important point must be remembered—it is the overall survival of patients that counts, not the respective mortality of cases treated medically or surgically. If a surgeon were to turn down any seriously ill patient his mortality rate would drop to near zero; if the physician were promptly to transfer every patient to an enthusiastic surgeon his own figures might show a distinct improvement, yet the hospital as a whole might not be content with the results obtained in either case. In their detailed study of 624 patients with ulcerative colitis in the Oxford region, F. C. Edwards and S. C. Truelove^{1 2} showed that perforation

occurred in 3.2%, acute dilatation in 1.6%, and massive haemorrhage in 3.4% of cases. The importance in prognosis of the severity of the attack was clearly shown in that, using Truelove and Witts's classification³ of severity, they noted a mortality of 31% in severe attacks, 10% in moderately severe, and only an 0.8% mortality in mild episodes of colitis.

Perforation is the most serious complication of colitis. F. T. de Dombal and his colleagues⁴ recorded 13 examples in 465 colitics (2.8%). It is significantly higher in initial attacks than in severe subsequent attacks of the disease. Two important facts are stressed by these authors. Firstly, diagnosis is difficult, and may be indicated more by the general deterioration in the patient's condition than by local signs; secondly, there is no proof that steroids induce perforation, since there was the same incidence of this complication in attacks treated with or without steroids or A.C.T.H.

Professor Goligher and his co-workers at the General Infirmary at Leeds report at p. 703 the results of a comparison of early and late intervention in severe attacks of ulcerative colitis. They reviewed 258 severe attacks of ulcerative colitis over a 17-year period. From 1952 to 1963 operation was undertaken after 12 to 17 days if remission had not occurred during intensive medical treatment. In the second part of the study, from 1964 to 1969, surgical intervention was usually carried out within a few days of the onset of the attack if remission had not by then occurred. In the early group the overall mortality was 11.3% and in the later group 4.5%. The mortality in both the medically treated and the operation cases considered separately was also lowered, and this improve-

¹ Edwards, F. C., and Truelove, S. C., *Gut*, 1963, 4, 299.

² Edwards, F. C., and Truelove, S. C., *Gut*, 1964, 5, 1.

³ Truelove, S. C., and Witts, J. L., *British Medical Journal*, 1955, 2, 1041.

⁴ de Dombal, F. T., Watts, J. McK., Watkinson, G., and Goligher, J. C., *Proceedings of the Royal Society of Medicine*, 1965, 58, 713.