

## Operating on the Elderly

Fifty years ago age itself was a contraindication to surgery, because the surgical and anaesthetic techniques of the time could not prevent an unacceptable mortality rate. Now age is no longer a bar to operation, but the chronic diseases, which are commoner with advancing age and increase the operative risk, must still be contended with. The physician and surgeon advising an elderly patient has to consider three aspects of the problem: firstly, the indications for operation and the benefit it will give the patient; secondly, the technical problems of the operation and the intraoperative complications; thirdly, the likelihood of postoperative complications and ways of preventing them.

Many elective operations are performed on young and middle-aged people because of the risk that the underlying disease will cause further symptoms. For example, most surgeons regard one attack of cholecystitis and the radiological detection of gallstones as indications for cholecystectomy. But such indications must be reconsidered when met with in a 70-year-old. How great are the chances of further attacks? Will they be severe? Do they really justify an operation with an appreciable mortality rate? No general guidance can be given on this problem. Each case must be assessed individually. One thing is certain: a little delay and extra reflection rarely does any harm and usually does a lot of good. It is wrong to hurry into any operation on an elderly patient if there are not clear and indisputable indications for it.

The tissues of the elderly heal as well as those of the young, and the surgeon need not generally expect the patient's age to make his technical performance more difficult. Wounds heal provided the nutrition of the patient is normal. Old people on a small income rarely show overt signs of malnutrition but many have a diet deficient in protein and vitamins. Consequently their wounds are slow to heal and lack resistance to infection. Time spent before an operation in restoring a patient's nutrition is never wasted. Some operations, particularly vascular ones, may be complicated by a sudden massive loss of blood. An elderly cardiovascular system cannot compensate as quickly and effectively as a young one, and unless the blood is replaced as soon as it is lost there may be profound, damaging hypotension. Operations which might place an excessive strain on the cardiovascular or respiratory systems must be planned and executed to keep intraoperative stress to a minimum. If stress is inevitable, the advisability of proceeding with the operation should be reconsidered.

Once the operation is over the real problems begin. The main cause of death is bronchopneumonia.<sup>1</sup> This is related to three factors—pre-existing lung disease, the changes in the lungs during anaesthesia, and failure of the alveoli to expand and of the bronchioles to clear their secretions after the operation because of pain. During anaesthesia the anaesthetist can usually maintain oxygenation however diseased the lungs, but as soon as the patient breathes spontaneously ventilation often becomes inadequate and bronchial secretions accumulate in dependent areas. The mortality rate is greater if there is preoperative bronchitis and if the patient smokes. The lungs must be at their best before operation, and to ensure this may entail many days of preoperative assessment and preparation—chest radiographs, repeated spirometry, no smoking, breathing exercises, physiotherapy, antibiotics, and preoperative consultations between surgeon and anaesthetist. Proper preoperative preparation of the lungs is the main cause of the improved mortality rates of the past 10 years.

The elderly find coughing after an abdominal operation especially difficult. Analgesics given before the physiotherapy are a great help, as are supportive straps and binders. In the worst cases continuous or intermittent postoperative epidural anaesthesia can totally abolish pain and permit deep breathing and coughing. The diaphragm descends when the patient is upright, so the quicker he gets up the sooner the bases of the lungs will be fully expanded.<sup>2</sup> The exercise of rising also causes tachypnoea and deeper breathing. Here the nurse and physiotherapist have to be encouraging but firm, for sympathetic acquiescence in a request to stay in bed another day can be harmful.

The only other preoperative disease likely to cause difficulties during and after the operation is recent myocardial ischaemia. The chances of myocardial infarction are high if the patient has suffered an infarct in the previous six months, and operation should be delayed if possible.

General care of pressure areas, micturition, and the bowels all play their part in ensuring a speedy recovery. A rapid recovery—that is the aim when operating on the elderly. The message of almost all the reports on this topic<sup>1-5</sup> may be summed up in the phrase: Each day of preoperative preparation takes a week off the postoperative recovery.

- <sup>1</sup> Burnett, W., and McCaffrey, J., *Surgery, Gynecology and Obstetrics*, 1972, 134, 221.
- <sup>2</sup> Browse, N. L., *The Physiology and Pathology of Bed Rest*. Springfield, Illinois, C. Thomas, 1965.
- <sup>3</sup> Brooks, B., *Annals of Surgery*, 1937, 105, 481.
- <sup>4</sup> Herron, P. W., Jesseph, J. E., and Harkins, H. N., *Annals of Surgery*, 1960, 152, 686.
- <sup>5</sup> Ochsner, A., *Geriatrics*, 1967, No. 11, 22, 121.

## Retinal Vasculitis

In 1880 Henry Eales, an ophthalmic surgeon in Birmingham, described a disease in which recurrent haemorrhages developed within the retina, particularly the more peripheral part, with extensions of the haemorrhage into the vitreous.<sup>1</sup> It was seen in a group of males between the ages of 14 and 29 years, and it was regarded as a primary retinal disease. His paper proved to be a classic and has stood the test of time with remarkably few subsequent alterations, except for the knowledge that the disease is not confined exclusively to such a narrow age range and that it may occur also, though much less commonly, in the female. It is natural that the condition has become recognized widely as Eales's disease.

The aetiology of the disease has proved elusive, but it has been regarded generally as some form of inflammatory lesion of the retinal veins (periphlebitis) with an involvement occasionally of the retinal arteries (periarteritis), so that the term "perivasculitis" was suggested. But histological evidence of lesions in the walls of the retinal blood vessels rather than merely their surrounding connective tissues determined the more appropriate term "retinal vasculitis."<sup>2</sup> Often Eales's disease occurs on its own, but occasionally it is associated with one of a variety of general disorders—multiple sclerosis, hemiplegia, paraplegia, transverse spinal cord lesions, thromboangiitis obliterans, tuberculosis, or brucellosis—and with an anterior or posterior uveitis. Unfortunately these associations do not help to establish a precise understanding of the aetiology, though it may be regarded as a non-specific tissue reaction to various antigens.

The brunt of the disease is borne by the veins in the periphery of the retina, so that any involvement of the