re-education after this period come from improving the co-ordination of such muscle-groups as remain active. He is more optimistic about recovery than many practitioners who follow cases for shorter periods, and he estimates that, of muscles so weak as to be classed 1 or 2 on the chart, some 50 per cent will recover useful function and 20 per cent will recover completely. He reckons that the outlook for muscles marked 0 at the end of the third week from onset is very poor, but warns that absolutely accurate grading at this stage is very difficult. He also warns that the favourable results depend greatly on the care with which affected muscles are protected from excessive strain for long periods, indeed for years, and points out that this is particularly important for even minor degrees of imbalance of the trunk muscles, especially in growing children, who should be inspected regularly. He emphasizes the insidious onset of scoliosis, and remarks that the plaster bed is as important a splint as the drop-foot shoe and needs to be used as continuously. In rate of improvement the author finds great variation between cases. If there is little improvement during the first three months the outlook is poor; but on the other hand, improvement may lag after the first few months and take on a later spurt. He finds no good explanation for the poor outlook in certain muscles compared with others, for instance the *opponens pollicis*, the abdominal muscles, the *gluteus medius*, the *tibialis anterior* [anticus] and the intrinsic muscles of the foot. He points out that, though gravity may be an unfavourable factor for some of these muscles, this is not so for the hand and foot intrinsic muscles, nor for bulbar pareses—which persisted more than three years in eighteen out of thirty-seven patients who survived. Death occurred in nearly 50 per cent of the bulbar cases.

An interesting section deals with bladder complications, which occurred in 20 per cent of patients; these had usually retention in the early days of the disease, but sometimes incontinence persisting for weeks or months. In thirteen cases this was the only form of paresis. Constipation was often severe, and two patients had paralytic ileus which proved fatal in one. Tremor, common in the early stages, rarely persists after six months, but it seemed permanent in two of the author's adult patients, being of the intention tremor type and probably representing a striate lesion.

The author recalls that imbalance of any of the trunk and hip musculature may start a scoliosis and that it is not usually a short leg alone that produces a fixed lateral curvature. Like other observers he has found no clear association between the amount of paralysis and the lag in growth of the limb, which he attributes to loss of the normal venous pumping of muscle action, so that severe calf paralysis is most apt to lead to defective growth.

There is an interesting chapter on the psychic aberrations associated with poliomyelitis. Most observers have noted them in the early stages of the disease, but many have overlooked the fact that long-standing changes in personality may develop, especially a tendency to easy fatigue and to emotional instability, although none to intellectual deterioration. These changes are independent of the general frustration and sense of inferiority which widespread paralysis may cause and which should be prevented by efficient after-care and retraining for a remunerative occupation.

In after-care the author strongly advises team-work between the orthopaedic surgeon and the physiotherapist. For muscle exercises a warm pool has proved invaluable. Very gentle electrical stimulation also is favoured during the first year.

The book provides many interesting statistical tables and is written in a clear and pleasant style. The author must be congratulated on his mastery of a foreign tongue, for it is only an occasional phrase or word which betrays that such it is to him. There is at the end a useful summary of the contents of each chapter, which is repeated in Danish.—M. FORRESTER-BROWN.

PATHOLOGIE DES VEINES. By J.-D. MARTINET and R. TUBIANA. 9×6 in. Pp. xii+449, with 71 figures. 1950. Paris: G. Doin et Cie. Price 2,000 francs.

This is an interesting account of disorders of the veins. Much of the book is of no direct importance to the orthopaedic surgeon, but the sections on varices, phlebothrombosis and inflammations of veins certainly are. The authors cite a good deal of interesting experimental work in support of their views, and they are to be congratulated on an excellent and very full bibliography at the end of each section. Venous thromboses are far commoner in orthopaedic patients than many of us will admit, and it is regrettable that this very adequate monograph has no counterpart written in English. It illustrates once more our debt to the French school of surgery for its persisting interest in the morbid physiology of the circulation. It can be strongly recommended to any surgeon.—D. I.L. GRIFFITHS.