

These two essays have a good deal in common though the subject is treated in different ways. Sven Werne writing from the Orthopaedic and Anatomy Departments of the University of Lund gives a new account of the anatomy of the joints between the occipital condyles, atlas and axis and of the ligaments that unite them. Here are carefully made measurements of the range of movements in each joint. These are the best to date. Some points difficult of direct observation have been studied by the construction of models. More important still is Werne’s description of the ligaments and their behaviour in extremes of normal movement. These, together with the intrinsic factors provided by the dimensions and planes of the articular surfaces, are of course the limiting factors in the types and directions of movement. There are numerous fine drawings illustrating this part as well as of the plan and behaviour, when stretched, of the alar ligaments in particular. Werne has taken great pains to observe these by dissection and to record his findings diagrammatically. One of his most interesting conclusions is that the alar ligament becomes taut on rotation, so that in extreme rotation both these ligaments are tight. The other movement that stretches them is extreme latero-flexion of the head. These conclusions by Werne strike your reviewer as having a considerable bearing on the mechanism of odontoid fracture, one that he has long regarded as a traction fracture. Passing on now to the clinical part of Werne’s paper, we find that he presents seven cases of “spontaneous” atlas dislocation which is no more spontaneous than a box of matches! The term non-traumatic is much to be preferred. Werne remarks that a search of the literature had not revealed any description of the mechanics of atlas dislocation. This is presumably because he has not studied the literature of trauma and has missed the contributions of E. M. Corner (e.g., Annals of Surgery, 1907, 45, 9) or even of your reviewer. His own work is certainly more complete. In Werne’s cases the radiological evidence of a stretched transverse ligament is convincing in five of the seven cases; he claims no more. Recent naso-pharyngeal infection and rheumatic polyarthritis were the usual causes of ligamentous softening. There are excellent clinical photographs of his patients, mostly girls.

At this point the study by Tormod Hauge from the Neuro-Surgical Department of Rikshospitalet at Oslo takes the pathology of this condition much further. As would be expected from their source, in the five cases in this group severe pain or spinal cord involvement were leading features. Two deaths after operation (one from air embolism, the other in a dilapidated man aged sixty-four) provided material for histology. Chronic destructive inflammation was found in one, floridly characteristic of rheumatoid arthritis with giant cells, macrophages and plasma cells; the odontoid process had been converted into a cystic shell by this disease. In the others the inflammation was non-specific. Two of the five cases were not examples of dislocation of the atlas, but of the fourth cervical vertebra on the fifth and of the fifth on the sixth. Since all of the patients were operated upon by laminectomy and spinal fusion, biopsy tissue was available. It showed the same changes in these lower lesions as in the atlanto-axial ones. Hauge’s cases were of a severer, more advanced type than Werne’s and go a long way to advance our knowledge of the pathology of these important bony and ligamentous lesions in the upper part of the spine. This is first-rate work and demonstrates that the bones as well as the soft tissues are affected. To add that this is more evident in the older examples is to state the obvious.—Geoffrey Jefferson.


No one who reads this book could complain that the subject is not dealt with fairly comprehensively. The condition is defined; its etiology is discussed; its pathology is analysed; its clinical features and pathogenesis are set out; its treatment is detailed—both under the heading of the methods and under the heading of indications; the prognosis is envisaged; the results are tabulated; conclusions are drawn up; and finally there is an extensive bibliography. I must admit that if anyone were to ask me to write a hundred pages on congenital pseudarthrosis of the tibia, I would shudder, and I would expect potential readers to react similarly. But in fact, with bold type, ample references, generous illustrations and a few blank spaces, the authors have filled the space from cover to cover with success and interest.

The literature is extensively reviewed, and all the methods I have ever heard of, and some I have
Fortunately not heard of, are vividly described and illustrated. It is perhaps surprising that Putti, though referred to in the text, is not included in the bibliography. Certainly he employed successfully the operation of replacing the tibia by the fibula, rightly attributed to Hahn and later Huntington, and also described by Scaglotti (1936). It is no good pretending that I like all the metal in bone that is illustrated, nor is the placing of a Kuntscher nail across two epiphysial zones attractive. And as for encircling the tibia with four wire bands (p. 57, Fig. 10c) "c'est magnifique, mais ce n'est pas la chirurgie des os." It is surprising after reading this remarkable volume that one should in fact still have any difficulties. Nevertheless I could not find an explanation of the calcaneus deformity which almost inevitably accompanies the established pseudarthrosis.

The authors stress the advisability of operating at an early age—"dans les premières années de la vie," though they do say that older children, even adolescents, are easier to treat and recover more certainly. That is my own experience which now covers of course much more than the nine cases quoted in this volume, and the only real failure in my series was a child on whom I first operated at seven months. I think that some of the methods illustrated in this book have succeeded only because the children were considerably older than those I usually have to deal with. This does not mean that I disagree with the authors when they choose three to four years as the best age, for quite rightly they point out that the secondary effects of persistent non-union are serious and to some extent irreversible.

In dealing with prognosis, the authors stress the potential fallacy of deciding too quickly that a permanent cure has been obtained. I find this quite judicious, but I was disappointed not to find any discussion of the level of "dis-union" as a prognostic factor. I believe that the higher the pseudarthrosis lies in the tibial shaft, the better is the prognosis. The reviewer's clinical views, however, may be a little out of place here, and it would be as well to end by advising everybody interested in, or responsible for, the orthopaedic treatment of children to have a copy of this book and to read it.—Bryan McFarland.

REFERENCE


This monograph is based on the follow-up of 301 operations of cup arthroplasty. The book begins with a detailed historical survey of the treatment of arthritis of the hip, and this is followed by an account of the symptoms of the disease. Both chapters are rather tedious and could be omitted without interfering with the main substance of the work. There is a very good description of the operation, which is well illustrated by drawings; and it is apparent, from the close adherence to the original technique, that the author has come under the influence of the late Dr. Smith-Petersen himself. Bone grafting, to conserve the head of the femur, and derotation osteotomy are modifications that Dr. Jakobsen has found rewarding. The necessity for prolonged after-care is stressed, and at least one year of continuous physiotherapy is advised, with courses of exercises every six months over the next two years.

The 250 patients have been under observation for three to seven years. Only one immediate post-operative death is reported; but, in all, ten patients died in the first three years. The remaining 240 patients have been examined and the cases put into four categories: excellent, good, fair and poor. These results have been obtained by giving points for pain, mobility and stability. The cases are analysed under nine different etiological groups, and finally assessed as a whole. The final results compare very favourably with other methods of arthroplasty. Nearly 70 per cent of patients were completely free from pain, and 58.5 per cent had excellent mobility. A high incidence of minor instability makes the author's evaluation of excellent results as only 26 per cent; but, in contrast to this, 57.8 per cent of patients were very well satisfied and 24.6 per cent satisfied. Thus over 80 per cent of patients were convinced that the operation and prolonged after-treatment were really worth while.

Dr. Jakobsen concludes with these sentences: "Vitallium mould arthroplasty is not an ideal method as the result in the individual case is unpredictable. However, it is considered the best method for surgical treatment of osteoarthrosis of the hip joint used today in hospitals staffed and equipped to master the technique." This attitude towards the operation is surely one of the main reasons for his very successful results, and it should be a warning to many of us not to embark upon the procedure unless the proper facilities are available. I heartily recommend this book to anyone who is interested in the problem of hip arthroplasty.—J. N. Wilson.

THE JOURNAL OF BONE AND JOINT SURGERY