The authors' final conclusion that the intracancellous disc prolapse need not depend upon a weakness of the cartilage plate itself, but is the result of a disturbance of ossification in the neighbourhood of the annular marginal epiphysial rim of the vertebra, may well be true; but, as they themselves point out, we have not yet a full knowledge of the process of growth and ossification of the vertebral bodies, and until this is understood better their proposition must remain largely conjecture. The fact remains that these disc prolapses occur through the cartilage plate, unprotected as this is in the primates by any complete bony epiphysial plate from the pressure of the adjacent disc substance, and it seems probable that it is towards its periphery that the heaviest stresses produced by spinal movements will in any case fall.

Those interested in the place of vertebral osteochondrosis in spinal pathology will find considerable interest in this paper, because various obscure aspects of the problem are discussed in a stimulating way, though clearly we still have much to learn.—R. Weeden BUTLER.

ON OSTEOCHONDROSIS DEFORMANS JUVENILIS CAPITULI HUMERI INCLUDING INVESTIGATION OF INTRA-OSSEOUS VASCULATURE IN DISTAL HUMERUS. By Stéfán HARALDSSON. 9 × 6 in. Pp. 232, with 60 figures (one in colour) and 20 tables. 1959. Copenhagen: Ejnar Munksgaard. Acta Orthopaedica Scandinavica, Supplement No. 38. Price da. kr. 40.

This monograph from the Orthopaedic Clinic of the University of Lund is a credit to the author and the school from which it comes. In a clear, didactic way it offers the most recent evidence of the slowness in improving our understanding of the nature and causes of juvenile osteochondritis. Nevertheless, it is only with contributions such as this one that the shadows will be dispelled. The author has focused his attention on the rare localisation of osteochondritis in the distal end of the humerus, of which he has been able to collect twenty-four cases, and he precedes his analysis by an anatomical study of the vasculature of the distal humeral epiphysis during growth, a region as yet hardly explored with modern methods. He concludes that everything points to the necrotic nature of the condition and that the peculiar vascular pattern of this region explains that necrosis of the ossific nucleus of the capitulum might be produced by circulatory disorders in a few vessels only. He considers that trauma and perhaps a local undetermined factor, rather than synovitis, may be responsible for the vascular obstruction. Anyone interested in this, as yet unsolved, problem of juvenile osteochondritis will find the reading of this book not only interesting but also profitable.—Joseph TRUETA.

DIE ABNÜTZUNGSEKRANKUNGEN DER SEHNEN UND IHRE THERAPIE. By Doz. Dr H. SCHNEIDER, Vorstand des Institutes für Physikalische Therapie der Tiroler Gebietskrankenkasse in Innsbruck. Mit Einem Vorwort von Prof. Dr G. HOHMANN, München. 9½ × 6½ in. Pp. viii + 202, with 52 figures and 8 tables. Index. 1959. Stuttgart: Georg Thieme Verlag. Price DM 36.

This little volume makes much of a small field of knowledge, namely the anatomy and pathology of the origin and insertion of tendons. Bounded by this nutshell of knowledge the author soars into the infinite space of speculation. The preliminary anatomical observations on the protective mechanism around the insertions of tendons stems from the work of Weidenreich who, in 1922, pointed out that the periosteum ceases at the insertion of a tendon. From this we pass on to the consideration of the chemical changes in the ground substance of the tendon, fatty degeneration, tissue necrosis and calcification; and this leads to the question of tendon rupture. The consideration of reparative changes, new bone formation, and the development of bony spurs follows. Predisposing factors in tendonopathy are inborn tissue weakness, local or general vascular disease or disturbances of the sympathetic system. The causative factor is stress, prolonged, excessive or repeated, and the local cause in many cases is distortion of the line of tendon pull from the common range, either occupational or from local distorting disease.

The well known sites of tendonopathy in the body are then reviewed. There are strong grounds for including Osgood-Schlatter disease among the tendonopathies. These are, the sharp angle of insertion of the tendon, the association with sport, and the changes in the tendon rather than in the bone. Less convincing is the author's attempt to include Pellegrini-Stieda disease among the tendonopathies. Rarely changes in the adductor magnus insertion may be confused with Pellegrini-Stieda disease. The distinguishing feature, however, is the thin layer of synovial tissue lying between the bone flake and the femoral condyle, and it is this tissue which is responsible for the absolute congruity of the under-surface of the flake with the femoral condyle. The only comparable ossicle is the posterior

tibial flake which occurs in the posterior tibio-fibular ligament, and in this case no tendons can be considered responsible. Similar ossicles around the elbow joint do not as a rule echo the condylar shape so accurately and are due to tendonopathy. There is nothing new said about therapy.

The book is a stimulating review of a small field and deserves perusal. We await a similar review on tendonopathies lying between the musculo-tendinous junction and its insertion.—J. G. BONNIN.

SUBCUTANEOUS RUPTURE OF THE ACHILLES TENDON. A Study of 92 Cases. By Ored ARNER and Åke LINDHOLM. $9\frac{1}{2} \times 7$ in. Pp. 51, with 6 figures and 5 tables. 1959. Stockholm: Acta Chirurgica Scandinavica, Supplement 239. Price Sw. kr. 10.

One has become accustomed to expect a very high standard of writing from the staff of Karolinska Sjukhuset in Stockholm. This report on rupture of the tendo calcaneus [Achillis] is another example of first class reporting. In fact, one could advise would-be surgeons to use it as a model for a paper on clinical research. There is a short and interesting account of the history and anatomy of the lesion and the authors show that all ruptures are complete. The diagnosis of incomplete rupture is made only by surgeons who haven't realised that there are five other muscles that can plantarflex the ankle when the tendo calcaneus is completely ruptured. There are some interesting comments on the pathology and etiology, and a detailed description of the findings in ninety-two patients, with operative treatment in eighty-six. It is noteworthy that the authors were able to follow up every one of their patients, although the average duration was six and a half years (minimum six months to maximum seventeen and a half years), and they are fully justified in their emphasis on the necessity for surgical treatment. Every practising orthopaedic surgeon should read and enjoy this excellent paper by Arner and Lindholm.—L. W. LEWES.

LE TRAITEMENT DE L'ABSENCE CONGÉNITALE DU TIBIA ET SES RÉSULTATS ÉLOIGNÉS. By Claude Régis MICHEL, Interne des Hôpitaux de Lyon. Travail de la Clinique d'Orthopédie et de Chirurgie Infantile (Professor Guilleminet). $9\frac{1}{2} \times 6\frac{1}{4}$ in. Pp. 144, with 17 figures. 1957. Lyon: Imprimerie Bosc Frères. Complimentary copies available from author, Hôpital Edouard-Herriot, Lyon.

When one reads that the author dedicated this moderate-sized book to his parents, to his wife, his children, his parents-in-law, to his uncle, to "tous les miens", to four of his immediate professors, to eight hospital chiefs and to seven Faculty chiefs, one is surprised at the omission of "Uncle Tom Cobley and all", but one is not surprised that very little is left out of the text.

Anatomical details, clinical signs and symptoms, diagnosis, pathogenesis (including destructive radiation) are all faithfully dealt with. The different forms of treatment are fully described and clearly illustrated without any bias being displayed, or conclusions drawn or opinion expressed. Ten cases are observed personally and are recorded meticulously and so fully as to include changes of plaster. The conclusions are most encouraging; but I would have liked to see something said about lengthening the short "substitute-tibia" (as Robert Stirling has done), and it seems odd for nothing to be said about the fibrocartilaginous "ghost" which is so interesting in its pathogenetic significance, and so important in its effect on the deformity of fibula and foot.—Bryan MCFARLAND.

DE CENTRALE LUXATIEPLASTIEK. Een Nieuwe Behandelingsmethode voor de Coxarthrose. By Dr K. BOUTE. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 153, with 13 figures, 12 plates and 3 tables. 1958. 's-Gravenhage: N.V. De Ned. Boek- en Steendrukkerij v.h. H. L. Smits. Price H.Fl. 9.60.

This monograph, which includes pages of summary in English, is a review of twenty-four cases of *coxarthrose* (our osteoarthritis) treated by Charnley's central dislocation modified by Dr Boute's chief, Dr J. G. A. Kerssemakers, with the idea of securing a useful range of movement in all cases. Fascia obtained from calves, but sometimes metal, was used for interposition; compression of course was avoided. The results after nine to thirty-nine months have been assessed by criteria like those of Mrs Margaret M. Shepherd, and twelve full-page radiographs illuminate the text. Charnley's reaction to this painting of his lily reads better in the French than in the English summary: "*Charnley se montre très sceptique vis à vis d'une arthroplastie selon son principe et se déclare partisan de l'arthrodèse procurant une ankylose osseuse ou fibreuse.*"