This monograph on extremital malformations is the outcome of the author's own experience, gained partly in the University Clinic of Paediatrics at Munster and partly in his own department at Aachen; it was written on the spur of a widespread increase in the frequency of congenital limb deformities which has been noticed not only at various centres in Germany, but also in Great Britain, Australia and other countries. In consequence, interest in these conditions has grown, and paediatricians as well as pathologists, obstetricians and other doctors have felt the need for a handy source of information. This need still exists in German-speaking countries as much as in Great Britain. The present publication is neither a brief introduction to the theme nor a comprehensive treatise covering the wide field of developmental abnormalities of the extremities. It is, in fact, a record—mainly on the morphological aspects—of the large case material available, with some attempt at classification and correlation with other anomalies. The findings are discussed in relation to a 'scaffold' of more or less defined syndromes. The author is a practising paediatrician and the book is published as one in a series of paediatric monographs. Paediatric readers, and that includes paediatric surgeons, would presumably wish to know more about the clinical aspects of the cases presented, especially the vitally important diagnosis of associated visceral anomalies and the outlook for survival. In the tabulation of cases, there is a column for associated disorders, but the reader is left to guess whether the affected infant was still alive at the time of going to press and whether the visceral defects listed were diagnosed clinically or by necropsy. Another important problem is the management and physical rehabilitation of the surviving infant, but this question is not even hinted at.

Obstetric readers would look in vain for information on antenatal diagnosis and obstetric management. Pathologists, on the whole, would be inclined to agree with the author in stressing the great difficulty of proving any particular cause in an individual case of malformation. They would also be prepared to accept the statement that only small minorities of malformations are caused entirely or predominantly by genetic agents on the one hand or by environmental ones on the other: the great majority are probably due to a combination of endogenous and exogenous factors, interacting in an obscure way or due to causes still unknown. But this should not be an excuse for avoiding altogether a discussion of the known facts of aetiology.

This book was written, but not published, before it had been suggested late in 1961 that most of those malformations whose increased incidence had worried and puzzled us, were associated with a history of 'thalidomide' administration to the mother in the early weeks of pregnancy. Whether accepting the evidence so far produced as conclusive or not, the reader would certainly wish to know Dr. Schönenberg's opinion on this point and it is unfortunate that, in this respect, his monograph was out of date on the day of publication.

The book will still be of value to teratologists and other workers with a specialized interest in this subject. Photographs and radiographs are of high quality and demonstrate clearly the lesions under discussion. The style, though inelegant, should not be too difficult for an English reader with some knowledge of medical German. There are numerous references to other works and publications, but the list of literature not only shows an irksome lack of bibliographic uniformity, but also a number of inaccuracies; some of these were noticed without any deliberate intention on the part of the reviewer.


Since Tjio and Levan reported in 1956 that the diploid number of chromosomes in man was 46 and not 48 as had previously been believed, much valuable research has followed making the study of cytogenetics one of major importance. The fifth volume of the Little Club Clinics in Developmental Medicine in nine chapters encompasses our present knowledge of this fascinating subject and provides a background to the techniques adopted by workers in this field. Each section of the book is dealt with by an expert but has been written primarily for the clinician, thereby taking the new knowledge and language of cell morphology and cell abnormality from the laboratory to the bedside. Although additional information has become available since the book was first written, as evidenced by the occasional footnote, it will undoubtedly remain a classic.

It is unfortunate that eponyms are used so freely. Personal names associated with disease processes are rarely helpful and often misleading. The objection to the use of the word mongol is understandable, but a term incorporating the fundamental chromosome defect would be preferable to the adoption of Down's syndrome. The only error which passed the careful scrutiny of the editor is on page 32 where XXXY instead of XYY is given as a possible gamete when there is non-disjunction at both divisions of the sex chromosomes in the male. In the next edition, and one must surely follow, the appointments of the contributors could, with advantage, be given at the beginning of the book rather than at the end.

This volume is a valuable addition to the literature on genetics. The presentation is excellent and the illustrations of a high standard. There are extensive references for more detailed information and the incorporation of an index by author as well as subject leads to ready reference. John Hamerton and his contributors must be warmly congratulated on the production of 'Chromosomes in Medicine'.