ergotamine is variable and severe vaso-occlusion has been reported with therapeutic doses. However, to our knowledge, paraplegia owing to occlusion of the lower medullary artery of Adamkiewicz does not seem to have been reported.

It has long been known that ergotamine crosses the placental barrier in small amounts. David described four of 24 patients with Poland's anomaly, where the mother attempted abortion with ergot derivatives and hypothesised that a defect of vascularisation in the limb bud induced by ergot could be responsible for the malformation.

We suggest that a single dose of ergotamine and caffeine administered at 4½ months could be associated, through placental transfer, with a vascular spasm of a medullary artery severe enough to induce spinal cord ischaemia and neuronal loss. Our observation, as well as the case reported by Hughes and Goldstein, at least raises the possibility that ergotamine induced birth defects of vascular origin can occur.

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BOOK REVIEWS


This is a collection of articles about a condition characterised by the improbable combination of narcolepsy (falling asleep at inappropriate times), cataplexy (sudden loss of bilateral skeletal muscle tone triggered by emotion), hypnagogic hallucinations (vivid dreams usually of a threatening nature), associated with sleep paralysis (when the patient feels his whole body to be paralysed at the stage between arousal and sleep). This syndrome was first described as long ago as 1672 by Thomas Willis and many subsequent reports suggested its reality. The recent findings that all authenticated narcoleptic patients are HLA-DR2 positive provides proof of its organic and genetic basis.

The discovery followed the now familiar serendipitous pattern of HLA and disease associations. In an extensive study involving many genetic markers carried out by Akio Asaka, Yutaka Honda, and Takeo Juji in Tokyo the only significant associations were Bw35 (positive) and Bw52 (negative) in 58 narcoleptic patients. Much later studies of HLA–DR antigens showed the unexpectedly strong association with DR2 which has been subsequently confirmed in many parts of the world.

This is a well presented and interesting book with contributions from neurologists, HLA specialists, and others, covering most aspects of this disorder and its relationship with the HLA system. Although rather specialised it is only a slim volume and provides a fascinating insight into a whole new field of genetic and molecular studies in brain function and in behaviour.

RODNEY HARRIS


The title of this book is immediately attractive to anyone involved in the field of multistage carcinogenesis. For many years there has been a need for a book that provides a relatively up to date overview of the specialised animal model systems that can be correlated with the role of tumour promoting agents and specific genes which confer susceptibility to neoplastic transformation in signal transduction. The book is subdivided into four parts. Parts I and II deal with genetic variants for responses to mitogens and tumour promoters and with cloned genes that influence susceptibility to neoplastic progression. There is an excellent chapter on the genetic determinants of susceptibility to mouse skin tumour promotion by DiGiovanni and an excellent chapter by Herschman and Brankow on the suppression and expression of the transformed phenotype in C57H10T½ cells following two stage transformation. The chapter by Weber and Schwawer on the role of the src gene in cellular transformation provides some interesting information on 3T3–TNR9 cells, which are resistant to the mitogenic effects of the tumour promoter TPA, and not only fail to be transformed by src but are growth inhibited in the presence of the src gene. The other interesting discovery is that v-myc facilitates v-src transformation in these cells. Thus, the data suggest common steps in signal transduction by v-src and TPA and imply a role for myc in the pathway. Dr Colburn's own chapter shows that the promotion insensitivity of her JB6 promotion resistant cell line is not the result of altered levels of PKC, but is more likely to result from changes in critical substrates phosphorylated by PKC. There are also some cautionary notes in the very detailed chapter on the complex regulation of gene expression by TPA by Denhardt et al; we are reminded that a correlation between PKC activation and a change in gene expression does not signify a causal relationship. Gene expression during multistage carcinogenesis is reported in detail in the following chapter by Bowden et al.

The chapters in part III on signal transduction are excellent overviews of a very complex field and integrate well with the chapters mentioned above. There is an excellent introductory to the field in a chapter by Parker et al. and nice discussions about the transduction of the phorbol ester signal and the role of PKC in IL–2 production in the following chapter. I particularly enjoyed the chapter on the role of raf and myc oncogenes in signal transduction by Heidecker et al, as I think we have dwelt on the role of raf in these messenger systems for too long. Finally, in part IV, on stress associated signals and gene regulation, there are two valuable chapters by the Bengoecheas and for protein. There is also an excellent chapter by Karin on cis and trans
acting genetic elements, which brings so many of the ideas of the book together.

In summary, the book suffers slightly from the fact that it is an edited volume with contributions from many authors. However, I think it is an excellent 'marriage' of interests and should provide both a good overview of multistage carcinogenesis and an insight into the problems of understanding that still afflict multistage carcinogenesis.

ANNE R KINSELLA


The author has set out to provide a McKusick-style catalogue of prenatally diagnosable conditions. There are 448 entries, including 34 chromosome abnormalities, 217 congenital malformations, and 84 inborn errors of metabolism. The 1221 references are listed at the end of the book and are identified in the text by first author and date. There is an exhaustive index that cross references all the conditions in which a given prenatal finding has been reported: for example, "hydramnios" refers to 106 different entries, "alphafetoprotein, elevated in maternal serum" to 48, and "fetal movements, decreased or absent" to 16. One condition that many people would think of in connection with reduced fetal movements, Werdnig-Hoffmann disease, is not listed, however, and this highlights one of the book's main drawbacks. It has its origin, as the author makes clear, in a systematic listing of all publications recording abnormal prenatal diagnostic findings. It is still too much an uncritical list of references, many of which are of purely historical interest. The reader is not told, for example, which of the 37 prenatal abnormalities listed under "spina bifida cystica" are likely to be the most helpful in an at risk pregnancy. Some of the entries include welcome comments by the author on the features or genetics of the condition, the diagnostic method of choice, or the limitations of particular methods, but not enough; too much of the book resists like the output of an abstracting service, and too much use is made, in commenting on the applicability of different methods, of an irritating system of superscripts, which had me continually looking back to the key at the front of the book.

The book's second major drawback is its datedness. The references run up to 1987, and two years is a very long time in such a rapidly moving field. Word of mouth and duplicated newsletters are the ways most people keep up with prenatal diagnosis. The same publishers have shown, however, with the latest McKusick catalogue, that they can get a book out in six months, and the same approach applied to this book could greatly improve its usefulness.

I believe there is a gap in the market for the book into which this one could evolve in its next edition. The author will need to become far less self-effacing and be prepared to weed out much clinically irrelevant information, to write the entries instead of just listing abnormalities and references, to extend the introduction (brief reviews of such topics as the safety of chorion villus sampling, de novo structural chromosome abnormalities, and prenatal therapy would be welcome), and to tidy up many minor irritations in the organisation, terminology, abbreviations, and typography. He should aim to keep the text continuously updated and find a method of rapid publication. Then he will have a winner on his hands, but so far he is only half way there.

N R DENNIS


This is the report of the Proceedings of the 1st International Symposium on Human Achondroplasia, held in Rome in November 1986, a well produced, hard backed volume of nearly 500 pages, comprising a number of short papers with discussions.

The first section deals with genetics, ultrastructure, and cartilage histochemistry; the second with clinical aspects and complications, together with anaesthesia and its problems; the third and fourth sections (approximately half the book) are devoted to the surgery of spinal disorders and the techniques and results of leg lengthening. In the final short section (30 pages) social and psychological implications are discussed.

The book should be of interest to all those involved in the care of 'little people', and those engaged in basic science research relating to the skeletal dysplasias, although this latter field is changing so rapidly that some of a 1986 report must necessarily be 'time expired'. The long surgical section is of particular interest in presenting some widely differing views on leg lengthening, its techniques and timing, and indeed whether it should be advised at all.

The meeting was unusual for a scientific one in that several 'little people' were present as delegates, giving their own views. Although most of them would not have clearly understood much of the proceedings, they found it heartening that so many specialists are now engaged in both clinical and basic science research into the subject.

Although most of the separate reports can (or will be) found in specialist journals, this book is a valuable collection of papers dealing with all aspects of achondroplasia, and forms a ready reference for clinicians, geneticists, and laboratory workers involved in the subject.

One might question the value of a symposium dealing exclusively with one diagnosis (although one or two related disorders such as hypochondroplasia were briefly discussed), when many of the problems and the approach to them are clearly relevant to some of the rarer generalised skeletal dysplasias.

This is a neatly produced book, with many illustrations, some of them very good, mostly adequate rather than excellent.

RUTH WYNNE-DAVIES


Research into atherosclerosis has traditionally involved a multitude of disciplines. As a positive family history is one of the most important risk factors for the development of atherosclerosis, a strong genetic component