Genetic Variation and Disorders in Peoples of African Origin.
James E Bowman, Robert F Murray.

This book is a veritable compendium of genetic information, largely on American blacks but also on various African populations, systematically arranged for easy reference. The emphasis is on normal variation but the authors have tried valiantly to relate this variation to disease. In the case of haemoglobin and G6PD variation this is relatively easy and has been well done. When it comes to other serological polymorphisms they have, understandably, been less successful.

The chapters on 'Anthropometry and Skeletal Variation' and on 'Dermatoglyphics', which together constitute 18% of the length of the book, have very little relevance to health and will not be of much interest to medical geneticists.

Those chapters on the malaria protective traits, including one devoted to 'The Malaria Hypothesis', and the chapters on 'Lactose Intolerance and Malabsorption', 'Twins and Other Multiple Births', 'Congenital Malformations', 'Hypertension and Diabetes', 'Counselling and Human Genetics', and 'Ethical Issues and Public Policy: An International Perspective' are generally well written, constituting reasonably comprehensive, up to date reviews on the subjects, and will interest medical geneticists.

It would appear that the authors wished to review the data from Africa as completely as those from the Americas. Unfortunately, they have not succeeded in this and there is a striking paucity of studies from the African continent. One wonders how thoroughly they searched publications for these studies! Did they have access to the journals which are published in Nigeria, Ghana, Kenya, Zambia, and Zimbabwe, not to mention those in languages other than English?

Hypertension is a major problem in African-Americans, and is plaguing the urban dwellers of Africa too. There are still some African peoples in whom hypertension is not a problem and most of these are undergoing rapid sociocultural change. The careful monitoring of these for the onset of hypertension, together with the documentation of their change in life style, might provide important clues as to the aetiological factors involved in the development of hypertension.

The inequalities in health between black and white Americans are clearly spelled out; with respect to almost every indicator of health, blacks fare worse than whites. Life expectancy at birth is five to six years shorter; the infant mortality rate is almost twice as high; the maternal mortality rate is over three times higher. Heredity cannot be said to be the cause of these differences; the problem is clearly socioeconomic with poverty the root cause. It is salutary to read that, whereas 9-7% of white families in the USA live below the poverty level, a staggering 32-4% of blacks do so. The plight of the Midwestern blacks is the greatest. Turning to the health of Africans, the overriding importance of environmental agents in the causation of disease is clearly brought out.

Where infant mortality rates are almost everywhere nearly 100 (and in some countries they are over 200), it is understandable that inherited disorders have not attracted the serious attention of governments and health planners. The role of heredity in susceptibility to infectious disease is not discussed except in one case, that is, the allele G6PD in the group specific component or Vit D binding protein system and the claim that it predisposes to AIDS (p 341). The 1987 study claiming to have found this predisposition was, we know, quickly challenged and was eventually retracted by the authors (Eales et al, Lancet 1988; i:936). The spurious association was the result of an unfortunate laboratory error and it is a pity that the correction, published in April 1988, is not referred to in this book which carries a 1990 date.

The chapters on 'Genetic Counselling and Its Adaptation to Varying Needs' and 'Human Genetics, Ethical Issues and Public Policy: An International Perspective' are excellent and provide fine overviews of the problems as they affect First World countries and, in particular, the socioeconomically privileged citizens of such countries. There is little attempt, however, to grapple with the problem of the role of genetic services in developing countries. In a brief discussion of the economics of genetic services in the United States, the authors quote, apparently with approval, the recommendation that "administrators
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should increase charges for services; bill for all services provided to family members; charge for all genetics professionals’ time, including that of counselors and social workers; and even request payment at the time of service” (p 359). Unfortunately, much of the burden of genetic disease even in the First World is borne by the poor, so-called minority groups (blacks in the Americas, Asians, Caribbeans, and Greek Cypriots in the UK), those least able to afford private health care. Medical geneticists in the UK, notably Bernadette Modell, have pleaded that such people must be spared the cost of screening tests and genetic counselling, if they are to be helped to cope successfully with their genetic problems, the most important of which are the haemoglobinopathies.

The book is a mine of information and an excellent index will facilitate its use as a valuable reference for physicians and other health care professionals working in Africa or in countries with significant numbers of people of African descent; the more than 800 references will help direct their further reading. There are useful appendixes in which are listed genetic variants and disorders commoner or rarer in blacks than in other peoples, charts of developmental indices in African–American children, and a list of polymorphic traits of exceptionally high or low frequency in peoples of African origin, although this table lacks references.

TREFOR JENKINS


This is a clinically orientated book largely concerned with clinical genetics, especially prenatal diagnosis, and some relevant obstetrics. The general approach is excellent in that enough theory is given about the genetic aspects in clear, well illustrated form to allow it to be comprehensible to the non-geneticist.

The first 11 chapters describe modes of inheritance, basic cytogenetics, and a brief, but fairly comprehensive, review of clinical molecular genetics and gene mapping.

There are short chapters on sampling techniques for prenatal diagnosis and discussion of the laboratory aspects of prenatal diagnosis. Genetic counselling and screening, and practical and ethical aspects of artificial reproduction, prenatal therapy, and termination are also covered. The final third of the book deals with specific groups of genetic disorders, ending with non-genetic conditions causing handicap such as intrauterine infection, obstetric complications, and teratogenesis. The book is based on the author's wide experience and on his lecture courses.

The book is patchy. Some chapters, mainly the genetic ones, are clearly written. However, in the author's attempt to be comprehensive, there is a profusion of short chapters where we feel not enough information is included to be useful, for example, the sections on hydatidiform moles, mosaicism, and prenatal therapy. We are not sure of the value of the very long lists which are included in a number of chapters; for example, there are two on autosomal dominant and autosomal recessive disorders, some of which are exceedingly rare and some of which are by no means confirmed to be monogenic.

After each chapter, a good and up to date list of references is given, but these are not referenced in the text and it would be hard for the reader not familiar with the published reports to know which were relevant.

The book is very well produced and illustrated on glossy paper and the translation from Hungarian is excellent. It would form a good starting point for trainees in fetal medicine and geneticists involved in prenatal diagnosis and should have a place in genetic and obstetric libraries.

DIAN DONNAI
PAUL DONNAI


Although medical geneticists usually regard prenatal diagnosis as their own subject, only the most blinkered would deny that obstetricians also have a legitimate interest. Books on prenatal diagnosis conceived by obstetricians have a very different emphasis from those which start from the genetic counselling clinic or the service laboratory. This one is no exception. It is edited by two obstetricians from the West Pennsylvania Hospital in Pittsburgh and is considerably expanded from the first edition.

As expected, there is a strong emphasis on techniques for the visualisation and manipulation of the fetus and for the acquisition of fetal tissues. There are three chapters on ultrasound (one for each trimester), one on fetal echocardiography and Doppler blood flow studies, one on chorionic villus sampling, one on amniocentesis, and one on fetal blood sampling. Chapters on selective termination of pregnancy, fetal therapy, and preimplantation diagnosis complete the coverage of fetal manipulation. This leaves little room for the laboratory sections, and although there is a substantial chapter on DNA analysis, a compendium of prenatal metabolic diagnoses, and a short section on maternal serum AFP screening for both fetal neural tube defects and Down’s syndrome, this remains the obstetricians’ eye view of the subject.

For the first edition of this book I wrote a review for the Journal of Medical Genetics which concluded, “poorly conceived, unattractively presented, and unnecessarily expensive”. The second edition provides vastly improved coverage of the field of prenatal diagnosis, but is still unattractively presented and unnecessarily expensive. I could only recommend it for the library which wants a complete collection of books on prenatal diagnosis.

D J H BROCK


Readers of Journal of Medical Genetics probably do not need to be persuaded of the value of the London Dysmorphology Database (LDDB), the new edition of which has just appeared. This new edition is produced by Oxford Medical Databases and is supplied on either 5 1/4” or 3 1/2” master floppy disks. Use of the database requires only the most limited knowledge of personal computers and the DOS system (as I can testify) and a computer with 10 Mb of filestore and