Heterogeneity of diabetes in south Asian patients in Bradford, West Yorkshire

The incidence of type 1 diabetes in children in India and Pakistan is remarkably low.1 However, south Asian children resident in the UK have a rising incidence of type 1 diabetes,2 approaching that of the indigenous population.3 There is particular concern about the emergence of type 2 diabetes in children, and the consequent morbidity and mortality.4 South Asian children are particularly at risk of type 2 diabetes.

A total of 160 children aged 0–16 attend the diabetic clinic in Bradford, of which 58 (38%) are of south Asian origin. In comparison, south Asian children comprise 27% and 32% of the primary and secondary school populations, respectively. Most have type 1 diabetes, but some have more unusual conditions not seen in the indigenous children.

Cases 2–4: DIDMOAD syndrome

One boy had a ventricular septal defect repair in infancy; he developed diabetes at the age of 3 and was started on insulin therapy. At the age of 10 he developed optic atrophy, then diabetes insipidus, chronic renal impairment, and a neuropathic bladder.

Another boy—one of three brothers with insulin treated diabetes—presented at the age of 3. He later developed optic atrophy. His two brothers have no other features of DIDMOAD syndrome (diabetes insipidus, diabetes mellitus, optic atrophy, deafness).

The third case is a girl who developed insulin dependent diabetes at the age of 3 years; she developed bilateral lens opacities two years later, treated by cataract extraction and bilateral lens implantation. Recently her visual acuity has deteriorated due to bilateral optic atrophy. She has no other features of DIDMOAD at present.

Case 5

An 11 year old boy comes from a family with a probable mitochondrial depletion syndrome. Aged 7 months, he developed diabetes which was treated with insulin. He is the fourth child from a highly consanguineous pedigree to develop diabetes in infancy. These children have a tendency to develop acute liver impairment during intercurrent illnesses. A sibling died from acute liver failure aged 22 months. Their twin cousins died aged 3½ from acute liver failure. The surviving child has intermittent deranged liver function but has never had liver failure and remains insulin dependent with poor growth and some renal impairment.

Case 6

A male infant presented at birth with insulin requiring diabetes, remaining insulin dependent thereafter. He was growth retarded at birth but had no dysmorphic features and a syndrome diagnosis was excluded. Presently aged 18 months, his growth and development are normal.

Case 7

This child was born at 34 weeks to a woman with gestational diabetes. He had hypertrophic cardiomyopathy post-delivery but this subsequently resolved. He now has visual impairment due to a retinal cone dystrophy, which is mirrored in his father and two uncles. Latterly, he developed significant obesity and acanthosis nigricans, and was diagnosed with Alstrom syndrome. He became hyperglycaemic without autoantibodies and is being treated successfully with metformin.

Discussion

Our clinic population includes a number of children who have diabetes in association with other unusual conditions, for whom their diabetes was not easily classified and may have been a feature of their intrinsic syndrome. The high prevalence of syndromic diabetes in this population may emanate from the high consanguinity rate in the Bradford Asian population. We suggest it is vital for children of South Asian origin presenting with new onset diabetes to be carefully assessed, with the aid of a good family history, due to the high incidence of unusual forms of diabetes in this group of children.

Acknowledgements

We thank the children’s diabetic specialist nurses Jane Houghton, Jackie Bateman, Ann Brooker, Glynis Stutely, and Amtul Ijar for assisting in the collection of the data. We thank Carolyn Stephenson for assistance with cross-checking patients on the Yorkshire Diabetes Register of Young People and for comments on the manuscript.

S R Gorman, D Haigh
Department of Paediatrics, St Luke’s Hospital, Little Horton Lane, Bradford BDS ONA, UK

R G Feltbower, P A McKinney
Paediatric Epidemiology Group, 30 Hyde Terrace, Leeds LS2 9LN, UK

H J Bodansky
Diabetes Centre, The General Infirmary at Leeds, Great George St, Leeds LS1 2RX, UK

Correspondence to: Dr S R Gorman, Department of Paediatrics, St Luke’s Hospital, Little Horton Lane, Bradford BDS ONA, UK; shaun.gorman@bradfordhospitals.nhs.uk

doi: 10.1136/archdischild.2000.024711

References


Advice for new mothers

My first-born arrived just after an SHO paediatrics job in Oxford and passing my DCH and DCCH exams. I was confident in handling small patients and in fielding parents’ questions but I was not confident with my own new baby. My scientific clinical self started having arguments with my unconfident maternal self, and even the slightest suspicion of criticism of my maternal skills sent me into neurotic introspection.

I went to a community clinic for my baby’s six week check and the CMO asked, “Any worries?”

“No, none really”, I replied. “I know in my head that he’s fine. He sleeps well and he’s growing right along the 50 percentile. My only problem is in confidence. Whenever anyone suggests I should be doing things differently I plunge into a turmoil of guilt and worry.”

The doctor examined my baby and on palpating his abdomen said, “He’s full of gas. The position you are feeding him in can’t be quite right. He must be sucking in air as he feeds.”

As doctors I am sure we often say too much and give too much advice, but it wasn’t until I left the room that I thought what an unhelpful comment this colleague had made to me. It certainly undermined my confidence—again.

J Wilson-Howarth
33 Hartington Grove, Cambridge CB1 7UA, UK; wilson.howarth@virgin.net

doi: 10.1136/archdischild.2004.049742

NHS Direct

The establishment of training sites for consultation skills is a worthwhile development in the service.1 What we also now need is a fundamental change in our attitude to the educational needs of nursing staff in our daily encounters on ward rounds and in the outpatient clinics. To replace the stereotype of the nurse being merely a passive recipient of the doctor’s clinical wisdom, consultants (and other medical staff) should utilise each and every clinical episode to engage the attending nurse in a clinical problem solving exercise aimed at highlighting the diagnostic issues from the nurse’s perspective. To take the process one step further, nurses should be encouraged to attend the “problem solving weekend of the week”, which has become a tradition in postgraduate centres up and down the country. Each and every nurse is
a potential future employee of NHS Direct. By optimising their educational opportunities we are making a future investment in the service.

O M P Jolobe
Manchester Medical Association, UK.
oscarnjolobe@yahoo.co.uk

Reference

Cause and effect?
I read Feltblower and colleagues’ article with great interest, having for some time wondered whether there might be an epidemiological association between childhood leukaemia and diabetes. The observations that the authors make regarding regional distribution of disease within a country certainly warrant further investigation.

Coincidentally, Mohn and colleagues’ have recently shown clinically significant impairment of pancreatic beta cell function in children who have been treated for acute lymphoblastic leukaemia (ALL). Although the numbers will certainly be small, is it possible that some of the observed correlation between these two conditions could stem from “iatrogenic” diabetes?

I Rodd
Royal Hampshire County Hospital, Winchester
SO22 5DG, UK; ian.rodd@weht.west.nhs.uk

References

BOOK REVIEWS

Nutrition in pediatrics: basic science and clinical applications, 3rd edition

In large Victorian households, feeding the children in the nursery was traditionally left to the youngest and most inexperienced household. Recognition of the importance of nutrition in children in hospital and the community has been equally slow. Medical undergraduates continue to receive little teaching on nutrition, even though over and under-nutrition continue to be seemingly intractable problems; a substantial proportion, maybe a third, of patients in children’s hospitals exhibit evidence of malnutrition. Moreover, we are now recognising that fetal and infant nutrition are major determinants of long term health.

One reason for the glacial speed in the development of clinical nutrition has been a view that clinicians already know enough about nutrition. That view is fostered in part by nutritional knowledge being recorded in the literature in disparate sites and in different ways. Much of it is in textbooks of biochemistry and metabolism; only rarely is it easily accessible. There is no obvious course book for the Royal College of Paediatrics and Children Health Diploma Course in Nutrition (www.rcpch.ac.uk).

Having the relevant basic science pulled together in one volume is immensely helpful to specialty developments; failure to do so is enormously damaging. One of the most interesting and exciting innovations in paediatric practice in the past 50 years in the United Kingdom was the concept of community paediatrics. It has founded, partly because the basic science underpinning the discipline was never collected, written down, and published. Clinical texts are little more than recipe books without the underpinning basic science.

Nutrition in pediatrics addresses many of these problems, and the editors are to be congratulated on a tour de force. My assumption about its scope being limited to hospital based, clinical nutrition has not been confirmed. It is useful to the paediatrician working in the community or in developing countries as well as the tertiary, hospital based specialist. The psychosocial aspects of feeding are well covered and I was pleased to see sections devoted specifically to adolescents. There are no obvious gaps.

The RCPCH is seeking to redress the lack of teaching in nutrition in undergraduate medical courses with its course in paediatric nutrition. This volume makes an ideal course book, and should also be a routine acquisition for all postgraduate and ward libraries.

Buy.

I W Booth

Managing children with psychiatric problems, 2nd edition

Emerging evidence, and political pressure have changed Child and Adolescent Mental Health Services a good deal over the past 10 years. It is insufficiently easy to be one of these changes. I can only imagine what it might be like to be looking on. This second edition brings a useful book up to date. It is a sort of ambassador for Child and Adolescent Psychiatry and should go a long way towards explaining the discipline to associated agencies, and the public. It will also be a useful book for those training in and working with social services. As there is a chapter on child behaviour therapy and another on child behaviour therapy in groups, space could have been made for some of these important areas.

If the book deserves to sell well, it will not be on the strength of its illustrations, one of which appears on the front cover. My son thought that some of them were drawn by an adult pretending to be a child, if it were true, would not be an example of good psychiatric practice. They are not needed to break up the text, and the fact that pictures have migrated from one chapter to another between editions suggests that their positions are almost arbitrary. Somehow they contrive to be at once both condescending and perplexing.

Having got over this minor irritation, the more I looked into this book, the more I liked it. It is easy to read, is well referenced, and punches above its weight.

A West

PEDIATRIC UROLOGY


Paediatric urology has come of age over the past few years, with it now being formally recognised as a distinct subspeciality of both urology and paediatric surgery within the European Union. In parallel with this development there has been a rapid expansion in the number of paediatric urologists practising in the United Kingdom. With this increased specialisation there is a risk of isolation, and developments in the field of urology may go unrecognised in the broader areas of paediatrics, paediatric surgery, and urology.

Therefore there is a need for publications to highlight recent developments. The non-specialist rarely reads major reference textbooks (of which there were two published in...
psjmalone

Tuberous sclerosis complex: from basic science to clinical phenotypes


Tuberous sclerosis has always had the capacity to confuse clinicians. Friedrich von Recklinghausen confused it with neurofibromatosis, when on 25 March 1862 he presented a case to the Obstetrical Society of Berlin. The case he described was of a young infant who had died soon after childbirth and who was discovered on postmortem examination to have multiple cardiac myomata in the ventricular walls and a "great number of tuberous" in the brain. It was a French physician, Desire Magloire Bourneville, a pupil of Charcot, who has won the plaudits for correctly appreciating that tuberous sclerosis was a separate disease. In 1879 he described the case of a 15 year old girl who died at the Salpetriere in Paris. She had suffered from epilepsy and severe learning difficulties for most of her life and was afflicted with a disfiguring vesicular-papular eruption on her face. An autopsy revealed that she had many hard sclerotic lesions in the cerebral cortex and white nodular lesions protruding into the lateral ventricles. Bourneville coined the term "tuberos sclerosis of the cerebral convolutions" for this unique pathology. The term tuberous sclerosis has stuck, although the French still patrioatically talk of Bourneville's disease.

Part of the reason that tuberous sclerosis has confused us, and still does, is that there has been a relative lack of population based research of the disease. In 1908 Vogt proposed a triad of clinical features that he felt characterised infantile spasms, aetio logically seizures, mental handicap, and "adenoma sebaceum". No doubt the description accurately reflected his anecdotal clinical experience. It is still quoted in medical textbooks to this day. However, it is also clear that the triad has not been uniformly helpful. Indeed, many authors have felt the need to include a general chapter on urinary tract obstruction rather than have it dealt with under prenatal diagnosis.

The chapters on vesicoureteral reflux provide an excellent overview, and it is refreshing to find an American text adhering to evidence based principles on the role of surgery. Although the topic of urinary tract infection is alluded to in a number of chapters, it is disappointing that it was not covered in a separate chapter dealing with presentation, investigation, and treatment. I also felt that there was a dearth of information on the condition found in the chapters on exstrophy, where there was a need to cover hypoplasia, undescended testes, and urological emergencies. One chapter deserves special mention: "Developmental perspectives of children with genitourinary anomalies". Conditions such as incontinence and congenital genital abnormalities can be particularly worrying for children and adolescents, and the point is clearly made that "identity becomes entwined with anomaly" and as a result adolescents may become developmentally blocked. The importance of identifying abnormal development to prevent problems and to treat psychological conditions that have already developed, and the need for every paediatric urology service to have formal psychological and psychiatric support is clearly made. It is encouraging to see such a holistic approach to patient care.

The chapters on vesicoureteral reflux provide an excellent overview, and it is refreshing to find an American text adhering to evidence based principles on the role of surgery. Although the topic of urinary tract infection is alluded to in a number of chapters, it is disappointing that it was not covered in a separate chapter dealing with presentation, investigation, and treatment. I also felt that there was a dearth of information on the condition found in the chapters on exstrophy, where there was a need to cover hypoplasia, undescended testes, and urological emergencies. One chapter deserves special mention: "Developmental perspectives of children with genitourinary anomalies". Conditions such as incontinence and congenital genital abnormalities can be particularly worrying for children and adolescents, and the point is clearly made that "identity becomes entwined with anomaly" and as a result adolescents may become developmentally blocked. The importance of identifying abnormal development to prevent problems and to treat psychological conditions that have already developed, and the need for every paediatric urology service to have formal psychological and psychiatric support is clearly made. It is encouraging to see such a holistic approach to patient care.

The chapters on vesicoureteral reflux provide an excellent overview, and it is refreshing to find an American text adhering to evidence based principles on the role of surgery. Although the topic of urinary tract infection is alluded to in a number of chapters, it is disappointing that it was not covered in a separate chapter dealing with presentation, investigation, and treatment. I also felt that there was a dearth of information on the condition found in the chapters on exstrophy, where there was a need to cover hypoplasia, undescended testes, and urological emergencies. One chapter deserves special mention: "Developmental perspectives of children with genitourinary anomalies". Conditions such as incontinence and congenital genital abnormalities can be particularly worrying for children and adolescents, and the point is clearly made that "identity becomes entwined with anomaly" and as a result adolescents may become developmentally blocked. The importance of identifying abnormal development to prevent problems and to treat psychological conditions that have already developed, and the need for every paediatric urology service to have formal psychological and psychiatric support is clearly made. It is encouraging to see such a holistic approach to patient care.

The chapters on vesicoureteral reflux provide an excellent overview, and it is refreshing to find an American text adhering to evidence based principles on the role of surgery. Although the topic of urinary tract infection is alluded to in a number of chapters, it is disappointing that it was not covered in a separate chapter dealing with presentation, investigation, and treatment. I also felt that there was a dearth of information on the condition found in the chapters on exstrophy, where there was a need to cover hypoplasia, undescended testes, and urological emergencies. One chapter deserves special mention: "Developmental perspectives of children with genitourinary anomalies". Conditions such as incontinence and congenital genital abnormalities can be particularly worrying for children and adolescents, and the point is clearly made that "identity becomes entwined with anomaly" and as a result adolescents may become developmentally blocked. The importance of identifying abnormal development to prevent problems and to treat psychological conditions that have already developed, and the need for every paediatric urology service to have formal psychological and psychiatric support is clearly made. It is encouraging to see such a holistic approach to patient care.