Acrodynia: a case report of two siblings

Acrodynia, a rare disorder, is a form of chronic mercury poisoning. 1 We report two siblings who developed the classic clinical picture of acrodynia.

A 4 1/2 year old boy was admitted with dysuria, general weakness, and loss of appetite. He had hypertension (140/95 mm Hg) and tachycardia (141 beats/min). He was irritable and depressed, and had a diffuse itching papular rash with palmar erythema and superficial desquamation (fig 1). Initial evaluation revealed a normal complete blood count and a normal blood chemistry. Urine analysis and complement levels were normal. Vanillylmandelic acid in a 24 hour urine collection was 22.2 µmol/day. Duplex scan of the renal arteries, abdominal ultrasound, and computerised tomography (CT) of the chest and abdomen, were all normal. Heart echocardiography showed mild hypertrophy of the myocardium. TSH was 5.53 mIU/L, and free thyroxine 24.45 pmol/L. A brain CT scan revealed a point calcification at the right caudate nucleus and several bilateral areas of low density in the white matter. EEG was normal. A successive complete blood count revealed haemocencentration (haemoglobin 165 g/l and haematocrit 48.1%).

After eight days, the patient’s 6 year old brother was admitted with general weakness, pain in his lower extremities, and a diffuse itching papular rash with palmar erythema and superficial desquamation. He was hypertensive (126/87 mm Hg) and tachycardia (140 beats/min).

Due to the fact that both siblings presented, at the same time, with more or less the same complaints and physical findings, it was suspected that their condition may have been the result of an environmental exposure. It was discovered that three months previously, the children had played with a broken sphygmomanometer. Postmortem for a few weeks later, symptoms had almost resolved and the rash disappeared. A month later, blood pressure and heart rate had returned to normal.

Torres and colleagues1 published a review of eight cases of acrodynia. In all these cases, and in ours, the physicians first thought of phaeochromocytoma. Mercury inactivates an enzyme that participates in the breakdown of catecholamines, and therefore their concentration increases, stimulating a phaeochromocytoma like syndrome.

Torres and colleagues also reported that in two of the patients reviewed, haemocencentration was observed, most probably due to intravascular and extracellular volume depletion. This was also found in our patients.

The brain CT findings of low density in the white matter, in patient 1, were not specific. Neurological examination was normal apart from mental changes that are common in acrodynia. To the best of our knowledge, this is the first time that abnormalities in brain CT have been described in acrodynia.

In summary, acrodynia, although rare, should be considered in every child presenting with hypertension, tachycardia, mental changes, and cutaneous manifestations. This case emphasises the fact that good history taking is an essential element in even the most puzzling clinical pictures.

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BOOK REVIEWS

Management for Child Health Services
Edited by Rigby M, Ross E, Begg NT, London
ISBN 0 412 59660 1

Children's services have increasing priority
with the present government in the UK. If we
are to use available resources wisely and pro-
vide the “seamless service” that children and
their parents deserve, then we need good
managers to oversee its delivery. Who are
these people and where are they found? The
editors of this book believe that “all involved
in child health are, by definition, involved in
its management”—so that none of us is excluded—and that “they should have
the benefit of material drawn together specifically for this purpose”—material which they
have sought to provide.

For me, much of this book was virgin terri-

tory, and I found it a good, readable introduc-
tion, and an information resource upon which
I will draw in the future. Those with more
experience would also find it useful. It is in no
way a reference text book, but contributors
from child health, legal, and management
fields bring their experience together to cover
the many different aspects involved in manag-
ing a service. Useful references are supplied at
the end of each chapter for those who wish to
delve further. The first chapter comprises a
brief historical review of child health services
during the twentieth century, and one realizes
the degree of expansion from small and
inauspicious beginnings. Later chapters are
devoted to such topics as management skills,
models of service quality, audit, finance, risk
control, and management. Issues around the
partnership of care with parents and carers are
explored, and interagency working—never
easy to carry out in practice—forms the
basis of another chapter, particularly inter-
esting and informative chapter was written as
a case study of the establishment and running of
an integrated secondary level child health
service. Another chapter, which was perhaps a
little easier reading, discussed legal and ethi-
ical principles relevant to child health using a
hypothetical, if perhaps slightly artificial,
case. The case history of a baby born with
significant disability may not have a single
mother who is also facing adolescent health issues in her
daughter. The final section is devoted to the services in the four countries compris-
ing the UK, each with unique values and
approaches, although built upon a common
base.

As child health services and service plans
to continue to evolve, there is much we can learn
from the experience of those who have been
involved in establishing our present services—we must avoid their pitfalls and fol-

low their successes. The book was written before the most recent service changes involv-
ing the establishment of Primary Care Trusts,
and one can only conjecture what a revised
version will contain after “the next 10 years”. Will we, the present day paediatricians, leave
a similar legacy for our successors?

R J Jefferson

Sudden infant death syndrome:
problems, progress and
possibilities
Edited by R W Byard, H F Krous. Arnold
75917 8

As an internationally recognised disease
classification, sudden infant death syndrome
(SIDS) is unique in that the diagnosis
is reached by exclusion, by failing to
demonstrate an adequate cause of death. By defi-
nition it is imprecise, the diagnosis of SIDS
depends on the thoroughness of the post-
mortem examination, the extent of detail
given in the clinical history and the meticu-

lous nature with which the death scene inves-
tigation is carried out. Even if these condi-
tions are satisfied to some chosen specification, this is not an endpoint but a
rather a beginning, as we are still left with the
question of “why did these babies die?”

The tragedy of SIDS is not a modern
phenomenon but was only christened a
syndrome 40 years ago and, after extensive
research, the possibility of finding a collection
of symptoms and signs manifesting as a
single cause appears extremely unlikely. Some
experts suggest a triple risk causal mech-
anism for SIDS involving a vulnerable infant,
a critical development period and an exog-

eous event that would not normally put a
healthy child at risk. Frustrated with what they
see as a definition of conven-
tience, want to restrict the liberal use of such a
definition, and this is not really evidence based
in a modern

sense. Papers are quoted with no real attempt
to assess their quality. This is partially because
there are so few quantitative studies in child
protection but I think readers would have
liked to have more descriptions on the quality of the methodology of the papers that are
quoted. I would have liked the references
tabulated in each area of abuse. There are also
concerns regarding the section on epidemiol-
ogy of abuse. The histogram that is used as an
illuminative tool does not give incidence rates nor is it population based.

I particularly studied areas in the book that
I know cause diagnostic difficulty and where
there is controversy. One of these is subdural
haemorrhage. I was disappointed that the
section was quite short: only four pages. I was
also disappointed at the number of references,
only 14, in what is the most common cause of
serious physical harm in physical child abuse.
I find that neglect and emotional abuse are areas where it is difficult to put facts together for a clear diagnosis. The section on neglect has a helpful list of points to look for in the potentially neglected child and also ways of assessing the whole family. I found the section on emotional abuse less helpful.

Child protection is a very difficult area for clinicians and many shy away from committing themselves to clear diagnoses. This new edition will help give more confidence in dealing with these difficult cases. It is a pity that at nearly £70 it will not be accessible to young doctors outside libraries. Perhaps fewer photographs and being in paperback would make it less expensive and more accessible.

J R Sibert

Mosby’s atlas and text of pediatrics and child health


I enjoyed reviewing this book aimed at students and doctors in training, and I also learned from it. I must add that it is a good source of information for doctors who are preparing for examinations.

The book gives useful information, is highly illustrated and the format with text boxes and lists levels itself for easy reading and reference (revision for examinations).

The photographs are well placed with the text and with excellent explanations, which accompany the photographs, x rays, and scans. The quality of the photographs are superb too, thus the clinical phenotypes, which the authors want to illustrate are clearly visible. I found the book easy to read and understand.

I am sure that this book will prove very useful and will fill the gap in the market, as it will attract those adult learners who learn visually. It lends itself for scan reading for revision.

I teach examination preparation courses and I will bring this book to the attention of candidates sitting the DCH and MRCPCH exams. I would think that the GP tutors who come across this book would find it helpful in their teaching too. Many of the illustrations and slides will enhance anyone’s teaching methods.

More books like this are needed in paediatrics and child health as the pictures and illustrations that the doctors see will enhance their learning (and retention) skills. With problem orientated teaching (and learning) that we now practise, this type of book and presentations would be a most welcome addition. The market is not saturated, and I hope it will never be.

S Lingam

CORRECTION

Unfortunately the authors for the items in the Archimedes articles for September and November 2001 were not correctly coded and do not show up using searches on ADC Online or Medline. The authors for these articles should be cited as follows:

**September**


**November**

