Contemporary Themes

Child Abuse Syndrome: The Cases We Miss*

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British Medical Journal, 1972, 2, 756-757

Summary

One hundred cases of physical injury to children are reviewed. Eighteen cases are shown to be misdiagnosed cases of child abuse. It is suggested that all hospitals review their records of childhood trauma in the light of these findings. All children under 4 years of age with trauma of non-obvious aetiology should be referred to the paediatrician.

Introduction

Continually changing attitudes to child rearing make the definition of child abuse difficult.¹ The syndrome includes cases of physical violence as well as nutritional neglect and emotional deprivation.²⁻³

The King's College Hospital Paediatric Department has at present over 70 known cases of child abuse under its care, and hospitals in the King's group are thought to be more than usually aware of the problem of child abuse. Most "battered babies" come to medical attention sooner or later in the casualty department, and it seemed worthwhile to find out whether or not such children were being recognized and dealt with. I therefore took 100 case records, randomly chosen, of children aged 12 or less who had come to Kings College Hospital or the Belgrave Children's Hospital because of physical injury. After excluding cases in which the cause of the injury was clear—road traffic accidents, well-documented falls, and injuries at school—and 10 cases in which the history was inadequate, 18 case histories remained.

Case Histories

All these patients were under 2 years old. There were seven boys and 11 girls; five of the children were coloured. The main features of the history and the physical findings in the 18 children are given in Table II. In every case there was enough objective evidence to suggest a strong possibility that the child was being abused, but this diagnosis seems not to have been considered. Thirteen of the 18 defaulted from their follow-up appointment—again strongly suggestive of the child-abuse syndrome. The delay in attendance after injury is shown in Table I.

*Based on a Student Thesis for the Almond Prize in Diseases of Children, King's College Hospital Medical School, 1970.

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TABLE I—*Delay in Presentation After Injury*

Time In Hours							Physical Injury Group
0-6	..	..	..	..	..	..	3
7-12	..	..	..	..	..	..	1
13-24	..	..	..	..	..	..	6
25-36	..	..	..	..	..	..	3
Longer	..	..	..	..	..	..	4
Not recorded	..	..	..	..	..	..	1
Total	..	..	..	..	..	..	18

Discussion

Previous studies have shown the clinical criteria outlined above to be strongly indicative of child abuse⁴. Although abuse can be found at any age, in general it occurs before the children are 4 years old.⁵⁻⁶ The group under study were all below 2 years of age. It must be borne in mind that a young child is unable to report his trauma and it is possible that the younger group is potentially greater.

The racial variation is difficult to assess owing to the varying racial population densities and the shifting population in the area served by the K.C.H. group. Five coloured children in this group could reflect the incidence of child abuse in children whose social environment is poor, rather than a pure racial bias.

The delay in attendance at hospital has been observed elsewhere.⁴⁻⁵ This delay may represent feelings of guilt on the part of the parent or be an extension of the initial abuse in the form of withholding medical treatment. In general the group studied showed a time interval between injury and arrival at hospital which is longer than might reasonably be expected.

Perhaps the major diagnostic feature in child abuse is the marked discrepancy between clinical findings and the parent's

TABLE II—Physical Injury Group

Case No.	Age at Presentation	History	Findings	Follow-Up
1	3 months	Mother fell with child. He had not moved his leg for two days	Supracondylar fracture of femur. Old fracture of tibia	Defaulted
2	8 months 2 years	Fell out of high chair Swallowed threepenny piece	Fractured skull Father took child from hospital against advice of all medical staff and warning child may choke to death	Defaulted
3	1 month	Fell from carrycot to floor	Large parietal haematoma over a very large fracture	Defaulted
4	6 weeks	Older brother of Case No. 3. Mother felt crackling feeling in left chest. Child "off colour" for four days	Fractured left 3rd-9th ribs. Fractured shaft left radius and ulna	Defaulted
5	10 months	Fell from high-chair	Fractured skull needed burr holes and evacuation of haematoma	Defaulted
6	16 months	Pulled hot drink over himself	Scalded over chest	Attended follow-up
7	4 months	Fell from carrycot	Fractured skull	Defaulted
8	1 month 6 months	Swollen thigh for two days Fell 2 ft (60 cm) off table	Fractured shaft of femur Fractured R. parietal bone. Haematoma needing burr holes. Neurosurgeon commented "largest he's ever seen in one so young"	Defaulted
9	1 year	Mother noticed swollen arm. Crying at night for three days	Supracondylar spiral fractures of humerus	Full follow-up. Well on discharge
10	2 months 4 months	Brother carrying him, banged his head on chair Found in cot with blood on face and vomit on clothes	Bilateral parietal haematomas with fractured parietal bone Dead. Coroner's verdict: Ruptured diaphragmatic hernia (but abdominal bruising noted)	Defaulted
11	14 months 20 months 6 years	Soft spot on head noted by minder. Cried when hair combed. Fell from high-chair one week before Fell one week before on to pavement Fell on to door 12 hr previously	Parietocapital fracture Parietal bruising Cut eyebrow, needing stitching	Defaulted
12	7 months 12 months 23 months	Fell off bed Fell off table Unwell. Mother "cleaned ear for wax"	Fractured lower shaft of humerus Fractured parietal bone with pronounced bruising Bleeding from right ear. Right frontal bruising. No fracture	Attended casualty follow-up
13	14 months 15 months 17 months 20 months 20 months 25 months 27 months 31 months 31 months	Fell off bed Hit head on ground Crushed finger in door Recurrent screaming Fell and hit head on steps Fell and hit head, had screaming fits Iron frame over radiator fell on head Fell and banged forehead Fell and banged forehead	Fractured parietal bone Bruising Bruising Bruising Bruising Bruising Bruising Bruising	Poor Records Defaulted
14	2 years	Swelling of left elbow 24 hr, swollen right foot, right shoulder painful. Two months before fell on left shoulder	General bruising. Subperiosteal haematoma. Right and left humerus slipped epiphysis right and left humerus heads. Right-hand periosteal reaction	Variable attendances at follow-up
	26 months	Dead	Coroner's verdict: Cerebral haemorrhage. Not traumatic	Generally good
15	6 months	Mother noticed depression in head whilst combing her hair	Fractured parietal bone	Social worker follow-up letter sent saying child bruised easily, but no evidence of deliberate trauma
16	4 months	Right leg swollen below knee for 24 hr. Screamed on handling for two weeks	Calcified subperiosteal haematoma right tibia, pronounced swelling	Defaulted
17	11 months	Right leg swollen	Periosteal reaction of femur	Variable attendance
18	1 year 6 months	Fell off bed seven days ago Crying all night. Bulge found over right side of head	Fractured skull Extensive fissured fractures	Defaulted Discharged well Placed in foster care

story.⁵ This is well illustrated in this series. The observation that the abused child is often unwanted is well documented.^{4,7} The unwanted child may well be the youngest, an unplanned addition to the family. Virtually all the children in this series were the youngest in the family.

From the evidence presented there seems little doubt that this group of injured children included many undiagnosed abused children. The fact that two of them died is disturbing. This hospital group deals with many cases of abused children and considers itself alert to the diagnosis of child abuse.

The conclusion we draw is that our present system for diagnosis is incomplete. It is likely that many hospitals have misdiagnosed children on their files. It would seem desirable that all records of childhood trauma, especially to children under 4 years of age, should be reviewed as it is known that the outcome of abuse can be detrimental to future development and that recurrent abuse is common.^{8,9}

It seems sensible to regard all children under four years of age with no obvious cause for the trauma as possible cases of abuse. They should all be referred for an immediate paediatric opinion.

Our diagnostic procedure is being reviewed and we hope to report on the follow-up of these largely misdiagnosed children. It is feasible that a computerized register for all hospitals in our area could aid in the diagnosis of child abuse. There still appears

to be a fundamental lack of awareness of the manifestations of the syndrome in casualty and orthopaedic Departments and at the junior doctor level. The responsibility for remedying this rests with the paediatrician.

This work was conceived and executed as a medical student and revised for this submission. It would not have been possible but for the help and support of Professor C. E. Stroud, Dr. H. Gamsu, and Dr. S. H. Ng., of the Department of Child Health, King's College Hospital, and Mrs. S. Harris, Paediatric Social Worker.

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