ORIGINAL ARTICLE

Parental Response and Understanding Towards Febrile Convulsion

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Summary

A questionnaire survey was conducted on parents of 58 patients admitted with febrile convulsion (FC) over a 4 month period to the University of Malaya Medical Centre, Kuala Lumpur to determine parental response towards febrile convulsion in their child and their understanding of home management of FC.

Results: The majority of parents (93%) were frightened or were in a panic state on witnessing FC in their child. Most (77.6%) of them were able to bring their child to medical attention within 30 minutes, with delays attributed to transport problems. Parental understanding on FC was deficient, particularly with regard to home management of acute seizures. The parents' main source of information was friends and relatives.

Conclusions: Urgent intervention to counsel and allay fears of parents who have just witnessed an acute FC in their child is required. More effort must be made to educate parents about FC, with particular reference to home management of seizures.

Key Words: Febrile convulsion, Parents, Attitude, Home management

Introduction

Febrile convulsion (FC) occurs in 2 - 5% of the population[1,2] and is commonly seen in outpatient clinics or in wards. Like most other illnesses, the focus of the doctor is predominantly on the child and his illness. In the hectic schedule of a doctor, often times, scant attention is paid to explore the responses and understanding of parents towards their child who has just had a FC. This is compounded by the fact that from a doctor's point of view, FC is considered a benign condition.

However, from a parental point of view, FC occurring in their child is a very frightening experience that invokes much panic and anxiety[3]. In a large number of cases, parental anxiety persisted months after their child was discharged from hospital[4].

Studies done in western countries have found that most parents were unprepared for seizures and did not know what actions were appropriate[5]. Medical staff activity was also found to be insufficient regarding parental instruction in handling the child in the event of a recurrence[3].

Knowledge about parental response and their understanding towards FC in their child would greatly assist the medical practitioner in providing appropriate education and counselling to the parents. There has not been any study in the literature that explored parental responses and understanding of FC in Asian countries.

This study therefore sets out to determine parental response towards FC in their child and their

Table I
Questions Posed to Parents During the Interview on Febrile Convulsion

1. What were your thoughts or response when your child had a seizure?
2. How soon after the onset of seizure did your child see a doctor?
3. If answer to question 2 is more than 30 minutes, what were the reasons for the delay?
4. What would you do at home if your child were to develop fever?
5. What would you do at home if your child were to develop a seizure?
6. What are your sources of information on febrile convulsion?

understanding about home management of FC on discharge from hospital.

Materials and Methods

This was a descriptive study conducted over a 4-month period from September to December 1998. All cases admitted to the paediatric wards in the University of Malaya Medical Centre (UMMC), Kuala Lumpur, Malaysia over that period with a diagnosis of FC were identified by daily review of ward admissions.

These cases were included in the study if they fulfilled the definition for febrile convulsion. A febrile convulsion (FC) was defined as a seizure that occurred in childhood after age 1 month, associated with a febrile illness not caused by an infection of the central nervous system, without previous neonatal seizures or previous unprovoked seizures and not meeting the criteria for other acute symptomatic seizures[6]. Cases were excluded if the patients were more than 7 years of age or had prior neurological deficits.

The parents or guardians of the affected children were then questioned using a prepared questionnaire (Table I). Only a single interviewer was involved throughout all the interviews to ensure uniformity in questions asked or clarification sought. All questions were asked in an open-ended manner without any prompting or suggestion of possible answers. Phrasing the questions in an open-ended manner provided a more accurate reflection of parental response and understanding about febrile convulsion.

The interviews were conducted on the day of discharge (if admission was for 3 days or less) or on the third day of admission (if admission was for more than 3 days). This interval was deemed sufficient for any proper counselling and education about FC to the parents by the medical staff. In the event that the patient was discharged before an opportunity for direct interview, a telephone interview was conducted instead.

The questionnaire covered details about the parent/guardian being interviewed, questions related to the response of parents/guardian after witnessing the episode of FC in the child and finally, questions dealing with parental response and their action plan in the event of fever and seizure occurring.

Table II
Parental Responses on Home Management of Fever

Action taken	Number of Parents	Action taken	Number of parents
Antipyrectics	39	Traditional medicines	3
Tepid sponging	32	Breast feed	1
Fanning	2	Ice water sponge	1
		Bring child to clinic	10

Note: Some parents gave more than one measure to control fever.

Table III
Parental Responses on Home Management of Acute Seizure (n=58)

Correct measures	Number of parents	Incorrect measures	Number of parents
Turn child to side	17	Bring to neighbour's house	6
Administer rectal diazepam	2	Sponging	38
Avoid putting object in mouth	1	Stimulation (call child, pressure over axillae, slap face, pat back, pour water over face)	6
		Massage limbs	1
		Place object in mouth	4
		Restrain child	1
		Place iron rods in hands	1
		Undress child	1
		Don't know	1

Note: Some parents provided more than one measure taken during seizure

Results

A total of 62 patients were admitted for FC over the 4-month period. Four of these patients were discharged before interviews with their parents were conducted and they did not have a telephone contact number. These subjects were excluded from the study. The remaining 58 parents of patients were interviewed in the ward (55 subjects) or via telephone (3 subjects) and formed the study population.

The interviewed parent/guardian age range was between 21 and 60 with a median of 29 years. Fifty-three (91.3%) of them were mothers, 3 (5.2%) were fathers and 2 (3.5%) were grandmothers. There were 41 (70.7%) Malays, 10 (17.2%) Indians, 5 (8.6%) Chinese and 2 (3.5%) parents from other races. Six (10.4%) parents had tertiary education, 43 (74.1%) had secondary education while 9 (15.5%) had primary or no formal education. Thirty-five (60.3%) parents interviewed had no previous experience with FC. The remaining 23 (39.7%) parents had either experienced recurrent FC in the patient (13 cases) or experienced FC in the patient's siblings (8 cases) or both (2 cases).

Out of the 58 parents interviewed, 4 were not present when the seizure occurred. Of the remaining 54, 50 (92.6%) felt frightened or were in a panic state on witnessing their child's seizure. From these 50 parents, 3 expressed that they thought the child had died. Two others wept while 1 parent said she was sad. The remaining 4 parents either said they felt worried (2 cases) or not worried at all (2 cases). All 4 parents had had previous experience with FC. Eighteen parents, despite having previous experience with FC still felt frightened during this episode of febrile convulsion.

Forty-five parents (77.6%) were able to bring their child to the attention of a doctor within 30 minutes. The remaining 13 (22.4%) sought medical attention 30-60 minutes later (3 cases) or more than 60 minutes later (10 cases). Nine of these 13 parents alleged that the delay was due to transport problems or traffic congestion. Other reasons cited for the delay in seeking medical treatment included "both parents at work" (2 cases), "most clinics closed" (2 cases) and "doctor not immediately available at clinic" (1 case). In only 3 cases were the delay due to parental decision not to seek medical treatment initially. Two of them thought their child was well after the seizures. Both parents had previous experience with FC. One parent sought traditional treatment after consulting her mother-in-law.

With regard to parental home management of fever, 47 (81%) parents answered correctly, giving at least one of the following answers: administer antipyretics, tepid sponging, place the child under the fan. Other answers were as listed in Table II.

Out of 58 parents, only 17 (29.3%) knew at least one correct measure to take during a seizure. Seventeen mentioned turning the child to the side or semi-prone position. Two parents would administer diazepam per rectally. One parent specifically mentioned about not putting objects into the mouth. Other answers given were as listed in Table III.

The most common parental source of information about FC was from friends and relatives (29 cases), while only 26 parents mentioned medical personnel as their source of information on FC. Parents also obtained information about FC from the mass-media or publications (12 cases) and personal experience (8 cases). Two parents did not know about FC.

Discussion

This study showed that the majority of parents felt frightened or were in a panic state on witnessing their child's seizure. This finding is in keeping with studies done in Western countries where the proportion of parents who were bewildered, anxious or frightened on witnessing FC in their child was close to 100%[3,5]. The level of fear or crises in a parent on witnessing a FC was extremely high. This can be concluded from the fact that a few parents thought their child had died and a few others even wept or cried, as a result of witnessing their child's FC. Had parents been questioned more directly, it would be probable that a larger proportion of parents would admit to these thoughts in them. In a study by Baumer[7], only 3 out of 50 parents (6%) volunteered that they had thought their child was dying or dead but the proportion increased to 70% on direct questioning. This underlines the need for urgent crisis intervention by the medical practitioner to allay the fears of parents who bring children with FC.

One positive aspect however, that came about as a direct result of parental feelings of fear was the promptness in which medical treatment was sought following an episode of seizure. From this study, the majority of parents demonstrated a high level of urgency in bringing their child to medical attention, most of them within 30 minutes.

Most parents who were late in seeking medical treatment were delayed due to transport problems. Only a very small number were delayed as a direct result of parental decision not to seek medical treatment initially. Parents of children with FC must therefore be educated on the correct plan of action in the event of a recurrence, which includes looking into an accessible and efficient transportation to a suitably located clinic or hospital.

A high proportion of parents (80%) knew aspects of home management of fever. This is in contrast to the low percentage (30%) of parents who knew the home management of seizures.

Most parents would probably have known about home management of fever in children from various available sources including relatives, friends and magazines. Fevers are also very frequently encountered in the family and parents would probably have dealt with this problem on numerous occasions.

On the other hand, home management of seizures is probably not very well publicised within the community at large, thus explaining the lower proportion of parents who were well informed about home management of seizures. Furthermore, several inappropriate actions mentioned by the parents in the management of an acute seizure might be influenced by traditional beliefs that have been circulated among relatives and friends, and passed down from generation to generation. It is likely that the problem of lack of knowledge regarding home management of seizure is even more evident among the rural population.

The findings in this study also demonstrated the inadequacy of education by the medical personnel at least in the aspect of seizure management during this admission and in previous clinic visits or hospital admissions for FC. This could be concluded from the fact that less than half of the parents mentioned the medical personnel as a source of their knowledge about FC. All of these parents were interviewed either on the

day of discharge or after three days of admission. Up to 40% of these parents also had previous experience with FC and in that process might have come in contact with doctors as well. Despite these contact opportunities, parental knowledge on home management of FC was still grossly deficient. Moreover, the fact that the majority (78.3%) of those who had experience with FC still developed fear and panic indicates inadequate education of the parents when their child was seen previously for FC.

There is therefore a need for more conscious and active effort from the part of doctors to counsel and educate parents of children with febrile convulsion. Proper counselling will not only improve understanding and home management of febrile convulsion but will also help to allay fear and panic in parents during subsequent episodes of febrile convulsion. In addition, steps must also be taken to educate the general public on home management of fever and seizures through the mass-media or through the maternal and child health clinics.

In conclusion, febrile convulsion is a frightening experience for the parents. Parental level of understanding on febrile convulsion is low particularly in the area of seizure management. This is the result of inadequate education of parents regarding FC. Appropriate counselling and education would go a long way in building confidence and diminishing fear in parents required to handle an acute seizure in their child.

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