Clinical examination in paediatrics at final MBBS: views of children and their parents

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(Index words: Informed consent, distress to children and mothers, gross inadequacy of honorarium)

Abstract

Introduction The final examination in paediatrics for medical undergraduates in Sri Lanka consists of a written and a clinical component. Each candidate at the clinical component sees one long case and two short cases.

Objectives To assess the views of the bystanders regarding their sick children participating at a clinical examination, and to evaluate the children's perceptions of the clinical component.

Methods An interviewer-administered questionnaire was discussed separately with the participating children and their bystanders at the final year examination in paediatrics of the Faculty of Medicine, Colombo, in 1999.

Results 116 patients participated at the clinical examination in paediatrics. 107 (92%) of the bystanders were the children's mothers. Informed consent had not been obtained for use in the examination from 59 (51%) of the children's mothers. Seven (6%) were not satisfied with the way their children were handled by the candidates, and 25 (21.5%) showed concern about the number of candidates examining their child. Bystanders who participated at the long cases were inconvenienced more than those in the short cases. 34 children above the age of 5 years were also interviewed. An explanation regarding the examination had not been given to 31 (92%) of them. Six children (17%) said they were examined for too long. A majority of the bystanders welcomed the payments received and all of them were satisfied with the medical students' conduct and politeness. All of them agreed that this form of clinical examination was a good method of evaluating a student's professional competence.

Conclusions Several aspects of the clinical component of the final examination in paediatrics for medical undergraduates need to be improved to minimise the inconvenience experienced by the children and their parents.

Introduction The clinical part of the final MBBS examination in paediatrics consists of a long case and several short cases. Studies have shown that this form of patient-oriented clinical evaluation is essential to assess competence in core clinical skills (1). Patients with common illnesses and important clinical findings are selected for this evaluation and examined by candidates.

Many details have to be looked into to minimise inconvenience to children during their participation (2). Some enjoy this experience whereas others are unhappy about it. In our experience patients have participated in this examination without much hesitation. The purpose of this study was twofold; to assess parental attitudes about their sick children participating in a clinical examination, and to evaluate the sick children's perceptions of examination by candidates.

Setting Our study was conducted in 1999 during the final MBBS examination of the Faculty of Medicine, Colombo. The clinical examination in paediatrics was at the University Unit of the Lady Ridgeway Hospital for children in Colombo. It is a fully equipped tertiary care teaching hospital with 6 general medical wards and 4 general surgical wards.

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Methods

An interviewer-administered questionnaire in the first language of participants was administered by two investigators at the end of each session of long and short cases. The investigators did not have any direct responsibility for treating or selecting patients for the examination or for conducting the examination of medical students. The parents and sick children were questioned separately using two different questionnaires. All bystanders were included in the study, but only those children who were above the age of 5 years and who could comprehend and answer the questions were included. The children who did not answer the questions were excluded from the study.

Results

Participants

There were 116 patients. Fifty-nine participated at long cases and 57 at short cases. The ages ranged from neonates to a 13-year-old. All patients were from the six medical wards in the hospital where they had been admitted for treatment.

The average time spent by a patient at the examination was 4.5 hours for the long cases (7.30 am to 12.00 noon) and 3 hours (1.00 pm to 4.00 pm) for the short cases. The average number of candidates examining each patient was 3 for the long cases (range 2 to 4) and 5.5 (range 2 to 7) for the short cases. 102 of patients were requested to participate at the examination only once. Twelve (10.3%) came for a second time and only 2 (1.7%) were taken three times. The payment received by the parents for each medical student examining their child was Sri Lankan rupees 50/= and 30/= for the long and short cases.

Parent details

Of the bystanders 107 (92%) were mothers. There were 6 grandmothers and 3 aunts. Ninety-seven of them (84%) had received secondary education.

Previous informed consent for participation in the clinical examination had not been obtained from 59 (51%) of the bystanders. 66 (57%) were of the impression that their child would benefit at the end of this exercise. Twenty-five (21.5%) objected to the number of medical students examining their sick child. Thirteen (11.2%) complained about the hassle of relating the history repeatedly and seven (6%) expressed concern over the way their children were handled by the candidates.

The bystanders who accompanied their children for the long cases (28) were inconvenienced most. Only 10 (8.6%) of those who came for the short cases voiced this complaint. The main difficulties faced were managing the sick child for several hours while relating the history to candidates, missing lunch served from the hospital, missing planned investigations and treatment scheduled for the day, and loss of rest and sleep by both parent and child during the clinical examination.

They had no complaints about the refreshments given during the examination. All commended the medical students for their conduct and politeness. A token of gratitude in the form of a toy or a chocolate was received by 60 (52%) children. A majority of bystanders were satisfied with the payments received. Only ten (8.6%) complained about the gross inadequacy of the amount received when compared to the inconveniences encountered.

Students who participated at the long case had a 45-minute interaction with the parent and child. Only thirteen (22%) had delivered any health message or given advice pertaining to the current illness or any other health matter at the end of this period.

The bystanders unanimously agreed that the clinical examination was a good way of testing professional competence of medical students. The adverse comments made by the bystanders are summarised in Table 1.

A separate questionnaire was administered to a group of 34 children above the age of 5 years. Proper informed consent or explanation of the purpose of their participation had not been made to 31 (92%) of them. Other findings are summarised in Table 2.

Table 1. Adverse comments of bystanders (n=116)

<table>
<thead>
<tr>
<th>Comment</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of informed consent</td>
<td>39 (34)</td>
</tr>
<tr>
<td>Inconvenienced by participation - long case</td>
<td>25 (22)</td>
</tr>
<tr>
<td></td>
<td>10 (8.6)</td>
</tr>
<tr>
<td>Too many candidates per patient</td>
<td>25 (22)</td>
</tr>
<tr>
<td>Hassle of relating the history repeatedly</td>
<td>15 (13)</td>
</tr>
<tr>
<td>Inadequacy of payments</td>
<td>10 (8.6)</td>
</tr>
<tr>
<td>Examining the child for too long</td>
<td>7 (6)</td>
</tr>
<tr>
<td>Not handling the child gently</td>
<td>7 (6)</td>
</tr>
</tbody>
</table>

Table 2. Adverse comments of children (n=34)

<table>
<thead>
<tr>
<th>Comment</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of informed consent</td>
<td>31 (92)</td>
</tr>
<tr>
<td>Candidates not friendly</td>
<td>7 (21)</td>
</tr>
<tr>
<td>Examined for too long</td>
<td>6 (17)</td>
</tr>
<tr>
<td>Not offered any token of gratitude</td>
<td>2 (5)</td>
</tr>
<tr>
<td>Examined by too many candidates</td>
<td>1 (3)</td>
</tr>
<tr>
<td>Not examined gently</td>
<td>1 (3)</td>
</tr>
</tbody>
</table>

Discussion

Clinical examination of patients is the best form of assessing medical students' clinical judgement and skills (1). However, this form of assessment in paediatrics requires the participation of sick children who have to face a number of inconveniences. Our study has identified some of the inconveniences faced by mothers and children when they participated at the final year paediatric clinical examination. It is the responsibility of the organisers of this form of clinical examinations to take all efforts to minimise them.
Managing a sick child for a long time while the child is being examined is troublesome. This problem can be minimised by involving a large number of patients. It will also help to reduce the tedium of relating the same story a number of times to candidates. Whenever needed help should be offered to the mother to manage her sick child. Arrangements should be made for all investigations and scheduled treatment planned for the day to be carried out during participation at the examination. Assigning a separate nursing officer to look into these is desirable. Patients and bystanders should be provided with all meals during the examination time. A member of the organising committee should be responsible for the welfare of participants at all times. Organisers should spend more time talking to parents as well as the children about the examination before obtaining informed consent. Talking to the parents at the end of the clinical examination about their child’s condition and discussing queries they may have regarding the child’s illness would be greatly appreciated by them.

Only a few parents told that the honorarium paid to them was too small. We feel that the payments made to them for their participation are grossly inadequate. More funds should be allocated for the honorarium in the future.

References

Microbiology of cerebral abscess at the Neurosurgical Unit of the National Hospital of Sri Lanka

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(Index words: Culture, identification of isolates, antibiotic sensitivity)

Abstract

Objectives To determine the microbial pathogens responsible for cerebral abscess, ascertain the most suitable antibiotic for treatment and to determine the predisposing causes of cerebral abscess.

Design Prospective study with microbiological investigation of pus aspirated from cerebral abscesses.

Setting Neurosurgical Unit, National Hospital of Sri Lanka, Colombo.

Study group 41 patients with cerebral abscess.

Period of study 18 months (May 1997 to December 1998)

Results Of the 41 samples of pus 26 (63.1%) gave a positive microbial culture. The Gram stain of the direct smear was positive in 77% of the 26 positive cultures. The most frequently occurring species were Streptococcus milleri group (35%) followed by Staphylococcus aureus (19%). Anaerobes accounted for 23% of positive cultures. All Streptococcus milleri isolates were penicillin and cefotaxime, and all anaerobic isolates except one were susceptible to sensitive to metronidazole. 75% of Gram negative bacilli isolated were sensitive to cefotaxime. All Staphylococcus aureus isolates were methicillin resistant, but sensitive to vancomycin and chloramphenicol.

Common predisposing conditions were congenital heart disease (30%), trauma (25%), middle ear disease (7%), and meningitis (7%).

Conclusions Organisms of the Streptococcus milleri group were most frequently found in cerebral abscesses. The present empirical therapeutic regime adopted in the unit which consisted of cefotaxime 1g intravenously three times daily and metronidazole 500 mg intravenously three times daily was found to be satisfactory as a majority of the organisms isolated were sensitive to these antimicrobials. In the case of methicillin resistant Staphylococcus aureus (MRSA), it is recommended that chloramphenicol be added to the current regime in management until the antibiotic sensitivity pattern is available.

Introduction

Cerebral abscess is a life-threatening infection. Although mortality was significantly reduced after the advent of antibiotics it still remained between 30% and 50% in the mid-1980s (1). More recently mortality ranging from 0% to 24% has been reported (2). This is attributed to the introduction of CT scanning. Although many reports have been published on surgery and treatment of cerebral abscess only a few have included

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