

Discussion

An enlarged mediastinal image on roentgenographic examination, despite optimal technique and views, may be difficult to interpret when it is not possible to define clearly its thymic, cardiac and vascular components. Griffith and associates(2) have presented three broad possibilities of errors in diagnosis of cardiac disease in patients with massive enlargement of thymic gland. Firstly, it may mask cardiac disease, e.g., dextrocardia; secondly, cardiac disease could be suggested because of apparent cardiomegaly, when no such disease exists; and finally, cardiac disease could be misdiagnosed if the thymic shadow is interpreted as a malposed great vessel. Two dimensional echocardiography helps in identifying the presence and nature of cardiac disease; however, it cannot differentiate thymic enlargement from a mediastinal mass. MRI can differentiate the various mediastinal masses because of its ability to characterize various tissues depending on the T1 and T2 weighted images. Moreover, the three dimensional perspective that it provides helps to clearly define the borders of various structures. Especially in paracardiac masses, MRI is superior to Computerized Tomography (CT) since epicardial fat and mediastinal structures are difficult to differentiate by the latter modality but are clearly distinguished by MRI(3).

In our case, plain X-ray chest (PA and lateral) could not delineate the thymic image from the cardiac silhouette. Echocardiography helped us to rule out cardiac disease but could not identify the nature of mediastinal mass. MRI confirmed it to be thymic enlargement in view of its homogenous consistency, tendency to lie around rather than compress neighbouring structures and the signal characteristics, MRI,

unlike CT, does not expose young children to radiation. Although routine MRI examinations are not necessary for thymic hyperplasia, our case highlights rare occasions wherein the thymus enlarges into the inferior mediastinum and mimics heart disease.

Acknowledgements

The authors wish to thank Dr. P.M. Pai, Dean, KEM Hospital and Dr. Viral Shah, Chief of MRI Department, Breach Candy Hospital for their guidance and help.

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Can Health Workers be Trained in Case Detection of Pneumonia ?

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In National Acute Respiratory Infection (ARI) Control Programme, emphasis

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*Received for publication April 4, 1991;
Accepted April 24, 1991*

lies on reducing deaths due to pneumonia. As a policy, the standard case management will be applied, in the field, through health workers. Therefore, it is important that these workers are effectively trained and have enough knowledge so as to give proper therapy to such patients. Impact of a short course of training on the knowledge and trainability of some paramedical workers was assessed and is being presented in this communication.

Material and Methods

Training in case detection and management of ARI was given to 2 groups of 25 nurses and 25 female multipurpose workers (MPWF). The nurses were trained at a medical college while MPWF were trained at a primary health centre. They were given modular training(1) in local language by pediatricians, trained in ARI programme, as per guidelines of National ARI Control Programme(2). This was followed by a video show of a film so as to help the workers in counting respiratory rate and recognizing chest indrawing and danger signs. This was followed by actual demonstration of cases by facilitators. Assessment of training was done on 4 children who were examined and classified by a trainer initially. Workers in both groups were asked to assess the children so as to know how many workers could correctly detect fast breathing, chest indrawing and danger signs. Based on these signs the workers classified the cases and gave treatment instructions. Two hundred responses, thus obtained, were compared with the assessment of the trainer (considered standard). The classification was considered correct only if the reasons assigned to it were correct. Similarly, in respect to treatment it was seen if the patients, as per their own

classifications, were given correct advice. The total time spent on training activities for MPWF and nurses was 10½ hours spread over two days and 6 hours over one day, respectively. The time spent with nurses was reduced with the intention of making both groups comparable as it was presumed that nurses, as they are involved in patient care, should grasp faster and do better in shorter time.

Results

The assessment of both the groups in relation to clinical signs, classification and treatment instructions is shown in the *Table I*. There was no statistically significant difference in responses when both groups were compared. In both the groups higher number of responses for classification were correct even though some of them had not correctly counted breathing rate or detected chest indrawing, since they could pick up danger signs. Although, breathing rate and chest indrawing was better picked up by MPWF, higher number of nurses could detect danger signs and gave correct reasoning for classification and correct advice.

TABLE – *Correct Responses(%) in Assessment and Classification of Cases*

Response	Nurses (Group I)	MPWF (Group II)
Breathing rate	88	96
Indrawing	80	92
Danger signs	90	82
Classification	92	90
Referral	90	86
Home remedies	88	86

Discussion

The best clinical predictor to the presence of pneumonia, in a particular child, has been found to be fast breathing(3,4). It correlates well with the radiological findings and is considered best indicator of the need of antibiotic therapy(4). Chest indrawing, on the other hand, has been found to be a sensitive indicator for hospitalization. Therefore, the emphasis in current National ARI control programme is on recognition of these two predictors. In present study most workers could correctly recognize serious illness (91%) and refer them correctly (88%). These observations convincingly demonstrate that paramedical workers can learn to recognize simple clinical signs. However, only long term field studies and morbidity and mortality trends of future shall demonstrate how much of it is translated into practice.

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Hepatic Manifestations in Sickle Cell Disease

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Sickle cell disease (SCD) is found mainly in the tribal areas of India like Andhra Pradesh, Orissa, Madhya Pradesh, Karnataka, etc. Out of the various presentations mentioned in the literature, hepatic manifestation is rare, accounting for only 10% of cases presenting with painful, crisis(1). This report presents our experience with 3 previously undiagnosed children with SCD who primarily presented with hepatic manifestations.

Case Report

Case 1: An eight-year-old male child of tribal stock from Madhya Pradesh, presented with 5 days' history of jaundice following fever, high colored urine and white stools. On examination, the child had a firm hepatomegaly (span of 14 cm) with a smooth surface. There was no splenomegaly. Hemoglobin of the child was 6 g/dl with a corrected reticulocyte count of 4%. No sickling was observed on blood smear examination. Plasma hemoglobin was elevated. His total serum bilirubin

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