moulding and caput succedaneum.

In the present study linear regression analysis was applied to predict the values of BW corresponding to MAC and CC. From the regression equation and line of regression, a MAC of 9.1 cm corresponded to the BW of 2500 g (sensitivity 92.6% and specificity of 94.5%). This value has shown higher sensitivity and specificity in detecting infants with LBW as compared to another point at 8.7 cm of MAC as used in a study by Bhargava *et al.*(1) (sensitivity 96.2% and specificity 67.2%). Therefore, in the present study MAC value of 9.1 cm has been used as a cut-off value to detect LBW babies.

In India a birth weight of 2000 g or less has been recommended as the criteria for admitting infants into special care neonatal units.(5) In the present study 42.3% of babies were below 2500 g and 12.3% below 2000 g. A MAC of less than 8.3 cm and CC of less than 28.6 cm had good predictive value in identifying babies weighing less than 2000 g. In the present study MAC had higher correlation with birth weight as compared to CC with BW. Therefore, a cut-off value of MAC of less than 8.3 cm can be used to identify babies weighing less than 2000 g.

The present study in conjunction with other studies(1,3) shows that MAC and CC are simple, quick and reliable indicators for predicting low birth weight. It is also shown that MAC correlates better with BW than CC with BW. These measurements are easy to learn, and can conveniently be introduced into the existing system of health care in the community of developing countries for use by paramedical workers to detect neonates who are at risk.

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Myositis Ossificans Progressiva

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Myositis ossificans progressiva is an extremely rare disease of children of unknown etiology characterized by progressive replacement of muscle, tendon,

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ligament and fascia by bone. The onset is insidious and usually begins in head, neck and back. In early phase the swelling(s) may be nodular, multiple and tender. But later on acuteness subsides and it finally transforms into a bony mass and bands. The muscle cells are replaced by collagenous and fibrous tissue which is converted eventually into cartilage and bone(1). Death is usually caused by involvement of heart and lungs. The rarity of this condition(2) prompted the present communication.

Case Report

A twelve-year-old female, 6th child of non-consanguinous parents, resident of Bijnor district, was admitted in July 1990 with complaints of gradually progressive stiffness of neck, back, shoulders and hips for the last 7 years. The parents noticed stiffness in back by the 3rd year of life. The earliest feature was painful nodules on the back which became painless gradually and later on neck, back, shoulders and hips became stiff.

On examination, there were multiple bony hard linear bands present in the neck and trunk. The sternocleiodomastoid muscles on both sides were replaced by bony bands. Similarly, posterior cervical muscles on back were replaced by irregular bony bands and the neck was completely stiff. On posterior aspect of trunk, there was a large band extending from axilla to sacrum on left and another smaller band on the right side (*Fig. 1*). There were bony bands between humerus and rib traversing across axilla which was more marked on the right side. Mobility of the right hip was also restricted and a bony mass was palpable from medial side. All these bands were clearly visible in skiagrams (*Figs. 2 & 3*). The stiffness was so pronounced that the patient was unable to move the neck, spine, shoulders and hips causing discomfort in her routine life. Chest expansion was markedly reduced. The patient had associated congenital bilateral hallux valgus.

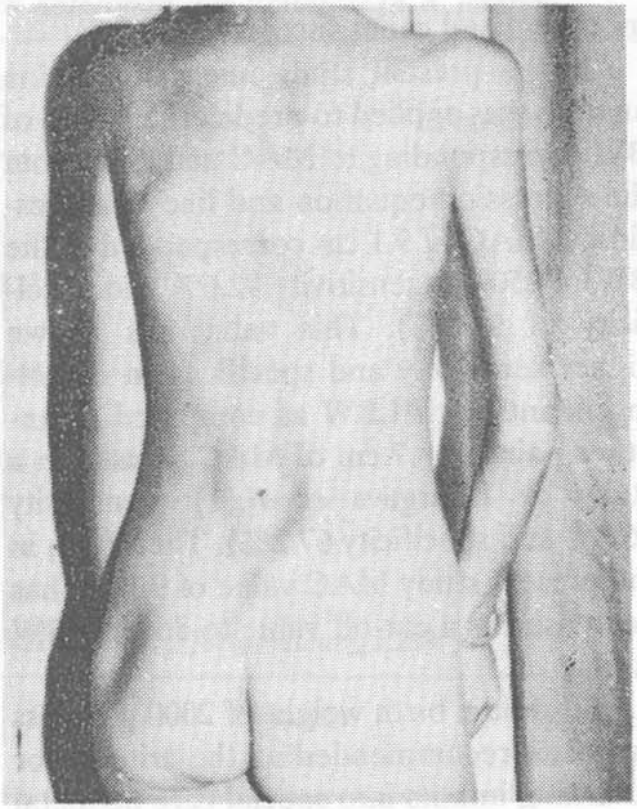

Fig. 1. Patient photograph showing bands standing out in the back.

Investigations revealed a hemoglobin of 10.4 g/dl, TLC 4500 cells/cu mm, DLC-P_{64}, L_{30}, E_5, M_1, normocytic hypochromic anemia; random blood sugar was 73 mg/dl; blood urea was 28 mg/dl; SGPT-42 IU/1; alkaline phosphates-21 KA units; and Vital capacity-800 CC. Skiagram of neck, trunk, pelvis revealed presence of heterotrophic abnormal bone formation as multiple linear bands of varying sizes (*Figs. 2 & 3*). Neck, shoulder and hip were fixed by extra articular bone bands mimiking extra articular arthodesis (*Fig. 2*).

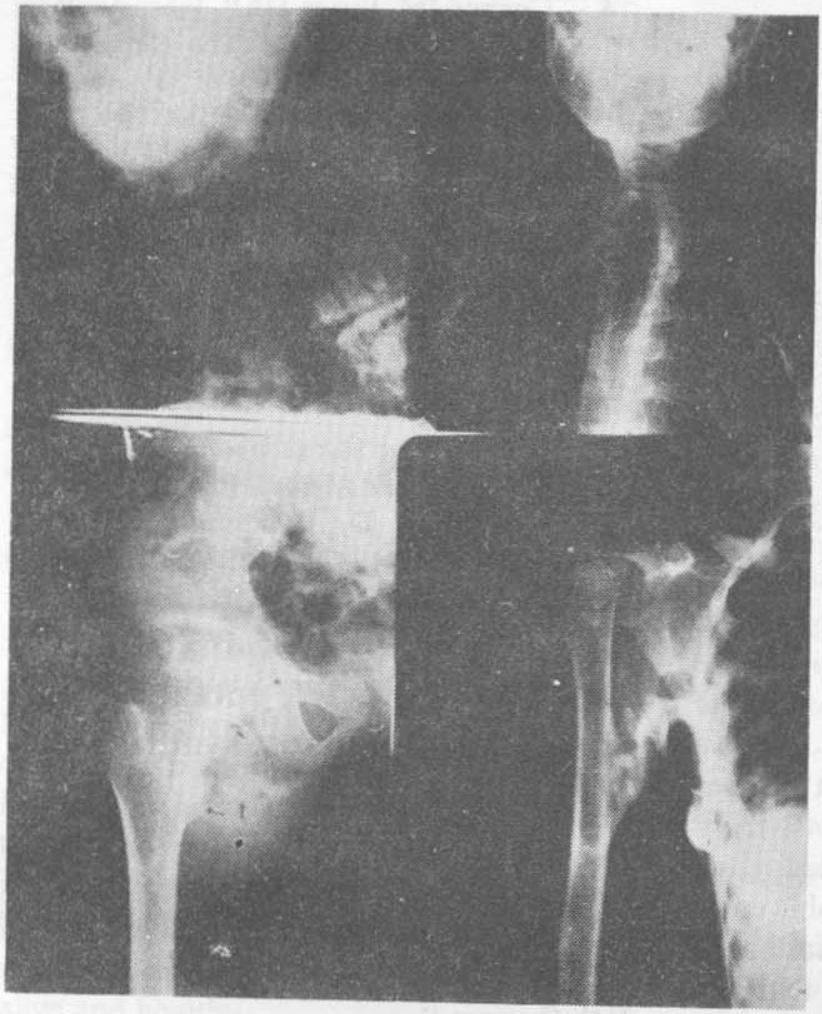

Fig. 2. Skiagram showing cervical band, bone bands in axilla, and bone mass in hip (mimiking extra articular arthodesis).

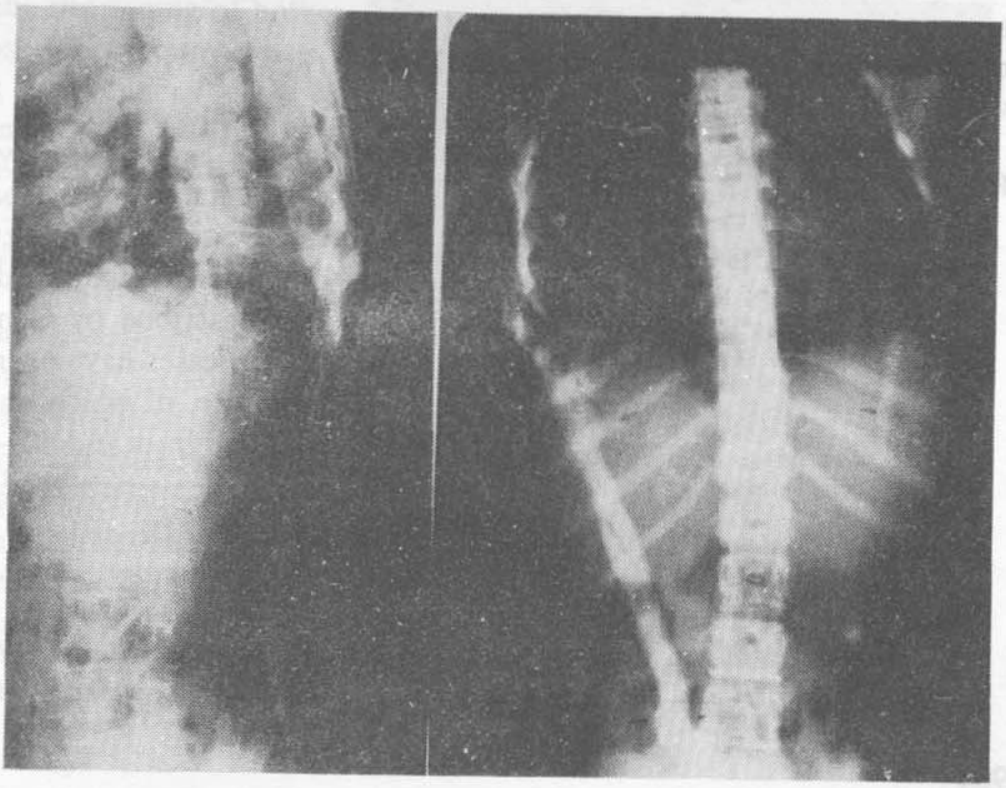

Fig. 3. Skiagram showing bands in dorso lumbar region.

Discussion

Carter *et al.*, reported the prevalence of myositis ossificans progressiva to be less than 0.1 per million in the UK population(3). Review of Indian literature did not reveal any similar case report. The condition was first described by Patin in 1692(3) and since then many more cases have been described(3-6). Robbins(1) described the pathologic basis which is characterized by replacement of muscles, tendons, ligaments, fascia and aponeurosis by bone. It is invariably associated with some or other congenital anomalies such as absence of digit, teeth, hallux valgus, short big toe and thumb, and the disease may later involve heart and lungs leading to death(1). The condition is also known as fibrodysplasia ossificans progressiva as it has got no connection with myositis ossificans traumatica(7). Ours was an advanced case, there were multiple heterotrophic new bone formation taking shape of thick bands of bone in the neck, trunk, axilla and hip. The vital capacity of patient was markedly reduced indicating involvement of chest and respiratory muscles. Thornton *et al.* reported even viable pregnancy in a patient with myositis ossificans progressiva(6).

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Chondrodysplasia Punctata–Conradi Hunermann Syndrome

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Chondrodysplasia punctata formerly known as Chondrodystrophia calcificans congenita, was described to have transient calcifications in skeletal and respiratory cartilages. It is a rare disease (1 : 500,000), first described by Conradi(1) in 1914. So far 150 cases have been described in world literature, of which only seven cases were reported from India(2-4).

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