EVENTRATION OF THE DIAPHRAGM*

WITH REPORT OF A CASE

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Considerable advance has been made during the last two decades in our knowledge of the diaphragmatic lesions. One of these, eventration of the diaphragm is of special interest to the practitioners as it presents many puzzling problems in diagnosis. A study of the literature gives one the impression that the condition is a rare one. Radiologists, however, believe it to be more common than the literature suggests for many cases are overlooked. In the vast majority of cases it is not even suspected from the clinical point of view. In some there are no definite symptoms at all. Even when symptoms are present, they vary greatly and are not characteristic. Unless the occurrence of this condition is constantly kept in mind and a careful scrutiny of the diaphragm is made in all X-ray examinations of the chest and gastro-intestinal system, it is easy to miss it. As far as we are aware no case of eventration in childhood has been reported in the Indian medical literature. Owing to its rarity every case of eventration is worthy of study and report. The literature on the subject is scattered and at times confusing and contradictory. So a brief resumé of the salient facts concerning this condition is prefixed to the report of the case.

DEFINITION

"Eventration of the diaphragm clinically has come to mean a congenital or occasionally an acquired high or elevated position of one leaf of the diaphragm muscle, characterised pathologically by aplasia or atrophy of the muscle fibres of the affected side but with no break in the continuity of the muscle." (Reed and Borden, 1935).

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Some authorities consider eventration an extremely rare condition, much less frequent than hernia of the diaphragm. LORD (1927) mentioned only 4 instances in the course of 16,504 X-ray examinations. NEWCOMET and SPECKEN (1936) found 4 cases in the course of 17,295 cases of chest and abdominal condition and they considered that this condition is as common as hernia of the diaphragm and gave the proportion of hernia to eventration as 1:1. EPPINGER (1927), on the other hand, considered hernia much more common and he gave the ratio as 37:1. In the course of 5,600 X-ray examinations of the chest and gastrointestinal tract in the King George Hospital, Vizagapatam, we have come across only 1 case of eventration. It would appear however, that eventration is not as rare as the above reports would indicate. For, while SAILER and RHEIN in 1905 were able to collect only 13 cases, KORNS (1921) in his exhaustive and critical review collected 65 cases from all medical literature and later REED and BORDEN (1933) in their review of the literature presented 183 cases including 65 cases reviewed by KORNS. Eventration occurs more frequently in males than in females. The ratio was approximately 4:3 in the group of cases reviewed by REED and BORDEN. The left leaf of the diaphragm is more often affected than the right. In REED and BORDEN’s 183 cases while the left leaf was affected in 165, the right leaf was affected in only 18 cases. Very few cases of this condition have been reported in Indian medical literature. SUNDARAM (1937) reported a case in a man aged 50 in whom it was found as an accidental finding. To the best of our knowledge no case of eventration of the diaphragm in Indian children has so far been reported. CHAUDHURI reported to us one case in a boy aged 6 years since writing this report.

ÆTIOLGY

Although the condition has been known since 1774 and there are many excellent monographs on it, its ætiology is imperfectly understood. There are two main theories about its ætiology. (1) The theory of congenital origin. (2) The theory of acquired origin. In the earlier literature the congenital nature of this condition is stressed. But in recent literature there is more inclination to consider the condition as an acquired one thus leading to some confusion as to its ætiology.

1. The theory of congenital origin. In view of the complexity of the development of the diaphragm it is not surprising that congenital abnormalities occasionally should arise. The relative frequency of occurrence on the left side, the frequency of occurrence in the foetus