A Case report Of Left Side Diaphragmatic Eventration

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ABSTRACT

BACKGROUND: Diaphragmatic Eventration (DE) is a rare condition where the muscle is permanently elevated but retains its continuity and attachments to the costal margins. It is seldom symptomatic and often requires no treatment. We present a 42yr old man with left side diaphragmatic eventration and planned for elective surgery.

Keywords: diaphragm, eventration, plication

INTRODUCTION

Eventration of diaphragm is pathological condition defined by permanent elevation of an immobile hemidiaphragm that cannot participate actively in respiration1. Incidence in adult is about 1:13000 in adult & 1:10000 in children. It occurs as mostly an isolated entity. In adult most often incidently detected on chest radiographs. Congenital eventration is due to maldevelopment of muscular portion of the diaphragm.

CASE REPORT

A 42 year adult male patient presented with c/o breathlessness on heavy work since last 3 months. Patient consulted PDU Civil Hospital in OPD for the same where he was advised chest x-ray. In which abnormal elevation of lt. diaphragm found. Primary examination of the patient done advised CECT Thorax with Abdomen. Then patient was admitted in surgical ward. Patient wa posted for planned surgery.

Management: Single lung ventilation done under G.A. Left side Posterolateral Thoracotomy done through 6th intercostal space. Diaphragm found thin, weak, redundant in central part. So, the central part of the diaphragm was excised, Phrenic Nerve was preserved & contents were repositioned to abdominal cavity. Repair of diaphragm done by DOUBLE BREASTING of cut edges & PPLICATION of redundant part done with prolene 1-0. Diaphragm kept at left 8th intercostals space. Left side intercostal chest drainage tube kept & closure done. Post operative period is uneventful. Oral feeding started on 1st POD. Intercostal chest drainage tube removed on 7th POD. Pt is discharged on 8th POD.

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DISCUSSION
Eventration of diaphragm consists of thinned diaphragmatic muscle, producing elevation of entire or part of hemidiaphragm. Most common cause of acquired eventration is due to birth trauma. More common in male & on left side. In adult, Eventration is usually due to iatrogenic or pathologic (neoplastic /infectious/degenerative diseases of cervical or mediastinal regions) insult to the phrenic nerve allowing abdominal contents to bulge in the chest. Partial eventration is more common on right side & incidence is equal in both male & female, most common site is anteromedial aspect of right hemidiaphragm. Fluoroscopy, USG, dynamic MRI is used to determine whether absent / decreased / classic paradoxical movement of diaphragm is present during spontaneous respiration. CT Scan is also used as adjunct modality. Congenital eventration is also found in toxoplasmosis, cytomegalovirus infection. Dyspnea is the primary presenting symptom. In adult, congenital eventration are asymptomatic & does not require any surgical treatment. Acquired eventration in adult is usually due to phrenic nerve insult. Eventration in children & infant is usually symptomatic; it is due to more mobile paediatric mediastimum & diaphragm is more important than chest muscles in them. The goals of surgical therapy should be
- to restore the diaphragm to a normal location within the involved hemithorax.
- to restore normal capacity to the hemithorax to allow lung growth in infants, children
- to restore normal visceral location in the abdomen
- to stabilize the mediastinum by eliminating paradoxical motion of the diaphragm.

Surgical treatment via thoracotomy was first described by Morrison in 1923. Approach of surgery for unilateral cases is thoracotomy & for bilateral cases is laprotomy. Now a days surgery is also done by minimal invasive techniques. Recurrence rate of 10 % to 15% is reported in adult cases who were treated only by plication.

REFERENCE