

Traumatic Diaphragmatic Hernia: A Retrospective Analysis of 10 Consecutive Cases:

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Abstract:

Traumatic diaphragmatic hernia (TDH) is a rare but potentially life-threatening condition. This retrospective study reviews the clinical presentation, diagnostic challenges, and surgical outcomes of 10 consecutive patients with TDH.

Aim:

The aim of this study is to evaluate the clinical presentation, diagnostic imaging, surgical treatment, and outcomes of patients with traumatic diaphragmatic hernia.

Objectives:

1. To analyse the demographic characteristics of patients with TDH.
2. To identify the common injury mechanisms and clinical presentations of TDH.
3. To evaluate the diagnostic accuracy of chest radiography and computed tomography scans in TDH.
4. To describe the surgical treatment and outcomes of patients with TDH.
5. To identify factors associated with morbidity and mortality in TDH patients.

Introduction:

Traumatic diaphragmatic hernia (TDH) is a rare complication of abdominal or thoracic trauma, resulting from disruption of the diaphragm. Delayed diagnosis can lead to increased morbidity and mortality.

Materials and Methods:

Study Design:

This retrospective study included 10 consecutive patients with TDH treated at our institution between 2020 and 2023.

Inclusion Criteria:

1. Patients with confirmed TDH diagnosis.
2. Patients who underwent surgical treatment for TDH.

Exclusion Criteria:

1. Patients with non-traumatic diaphragmatic hernia.
2. Patients who did not undergo surgical treatment.

Data Collection:**Medical records were reviewed for:**

1. Demographic data (age, sex, injury mechanism).
2. Clinical presentation (symptoms, vital signs).
3. Diagnostic imaging (chest radiography, CT scans).
4. Surgical treatment (laparotomy, thoracotomy, diaphragmatic repair).
5. Outcomes (mortality, morbidity, hospital stay).

Statistical Analysis:

Descriptive statistics were used to summarize demographic and clinical data.

Results:

Patient Demographics:

Male 80% (8 patients).

Female 20% (2 patients).

Injury Mechanism:

Motor vehicle accident-60% (6 patients)

Fall from height (2 patients) 20%

Penetrating Trauma 20% (2 patients).

Clinical Presentation:

Symptom	No. of patients	Percentage
Respiratory Distress	8	80%
Abdominal pain	6	60%
Chest pain	4	40%

Diagnostic Imaging:

Modality	Number	Percentage
Chest Radiography	9	90%
CT scan	9	90%

Surgical Treatment and Outcomes:

	Number	Percentage
Laparotomy	8	80%
Thoracotomy	2	20%

Diaphragmatic hernia with mesh	10	100%
Mortality rate	1	10%
Morbidity rate	3	30%

Discussion:

TDH requires prompt recognition and surgical intervention. Imaging studies, particularly chest radiography and CT scans, are crucial for diagnosis.

Conclusion:

Traumatic diaphragmatic hernia is a serious condition requiring timely diagnosis and surgical treatment.

References:

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2. Hanna, E. M., & Ferri, L. E. (2019). Traumatic diaphragmatic hernia: A review. *Journal of Thoracic Disease*, 11(10), 5601–5611.