



# DIAPHRAGMATIC HERNIA

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## ❖ Define :-

- Diaphragmatic hernia is one in which abdominal organs protrude through the diaphragm into the thoracic cavity
- It may be congenital or traumatic in origin
- Most commonly reticulum herniates into the thorax

## ❖ Incidence :-

- ❑ Higher prevalence of DH in buffaloes
- Because lesser collagen content, elasticity, vascularity of buffalo diaphragm
- Due to wallowing habit of buffalo

## ❖ Etiology :-

- Weakness of diaphragm
- Congenital weak point of diaphragm and physical forces like increase intra abdominal pressure during pregnancy and act of parturition
- This can result from trauma, dystocia or TRP

## ❖ Clinical signs :-

- Muffled heart sound with borborygmi sound audible from the thorax
- Reticulum sound at 6<sup>th</sup> intercostal space
- Sharp drop in milk yield
- Abducted elbow
- Partial anorexia with suspended rumination, recurrent tympany and scant faeces

- Palpation per rectum may reveal a forward position of abdominal viscera and an empty feel to the caudal abdomen in general
- Decreased production
- Colic
- Bloat
- Respiratory difficulties
- Chronic cough
- Dehydration

## ❖ Diagnosis :-

- ❖ History and clinical signs:-
  - By history of parturition
  - Auscultation – Muffled heart sound
- ❖ Radiography
- ❖ Left flank laparotomy/Rumenotomy

## ❖ Treatment :-

- It is surgical or comprising of reduction of herniated contents and closer the ring in diaphragm either by thoracic and abdominal approaches
- General anaesthesia and positive pressure ventilation of the lungs are the prerequisites in the both approaches



## ❖ Thoracic approach :-

- Incise over the 6<sup>th</sup> or 7<sup>th</sup> intercostal space starting a little lateral to the sternum and extending dorsally for about 5 to 8 cm
- Expose the chest cavity with rib retractors
- Adjust the respiratory pump to inflate the lungs to half of its normal capacity
- Reduce the hernial contents and close the diaphragmatic ring with chromic catgut
- Close the intercostal incision by placing sutures around the adjacent ribs
- Re-establish the negative pressure in the pleural cavity by inflating the lungs to its full capacity immediately before tying the last intercostal sutures
- Close the skin edges by standard manner

## ❖ Abdominal approach :-

- Establish positive ventilation of the lungs
- Incise through linea alba from 5cm caudal to the xiphoid cartilage and extending about 25-35 cm long parallel to the costal arch
- Reduce the herniated organ, suture the diaphragmatic ring with continuous lock stitch pattern using non-absorbable suture material and close the abdominal wound in a standard manner
- Re-establish negative pressure in the pleural cavity before disconnecting the pressure pump

## ❖ POC :-

- Adequate fluid therapy
- Broad spectrum antibiotic therapy
- Analgesic
- Wound dressing

*Thank you!*

