Case study

Congenital diaphragmatic hernia with late discovery, a case report

ABSTRACT

Congenital diaphragmatic hernia is a ~~condition where~~ protrusion of the abdominal contents ~~protrude~~ into the thoracic cavity due to a defect in the diaphragm~~. It is~~, most ~~commonly~~often diagnosed in the prenatal or neonatal period ~~and~~, often ~~leads to severe~~responsible for major acute neonatal respiratory distress ~~in newborns~~.

~~However, the~~The late-onset form ~~of this condition~~ beyond the neonatal period is rare and ~~can~~ often ~~be~~ misdiagnosed, ~~leading to delayed~~which delays treatment~~. This can be due to~~, either ~~the~~because of late-onset ~~of~~ initial symptoms or because of an asymptomatic form that is discovered incidentally ~~discovered~~ during a chest ~~X-ray~~radiographic examination beyond the neonatal period.

~~In this report, we~~We present the case of an infant ~~born~~ from a well-monitored pregnancy, ~~delivered~~delivery by ~~Caesarean section, with a normal~~high route, eupneic, birth weight ~~of~~ 3200 grams ~~and a normal~~, Apgar score~~. The infant~~ was normal, he was discharged from the hospital after 24 hours and remained healthy at home.

~~At~~ He consulted at the age of 6 months ~~of age, the infant presented with~~ during a first episode of acute viral bronchiolitis, and ~~a chest X-ray revealed~~in whom the thoracic radiography allows the diagnosis of a congenital ~~diaphragmatic~~hiatal hernia with late~~-onset symptoms. The~~ revelation, the patient ~~was stabilized and~~ referred to surgery ~~for treatment~~ after stabilization and the ~~successful management~~good evolution of his bronchiolitis.

Key words: Diaphragmatic hernia, congenital diaphragmatic hernia with late discovery, chest radiography.

1. INTRODUCTION:

Congenital diaphragmatic hernia ~~(CDH) occurs when~~ is the result of incomplete closure of the normal pleuroperitoneal duct ~~fails to close properly~~ during fetal development. It ~~affects approximately~~ has an incidence of 1 in 3000 live births, with most cases ~~being~~ diagnosed prenatally or neonatally ~~due to~~in the face of severe, life-threatening respiratory distress.

~~The neonatal form of CDH has a~~ In contrast to the high mortality and morbidity ~~rate. However, the~~ rates of the neonatal form, the prognosis of late~~-onset form of CDH~~ presentation congenital diaphragmatic hernia, which accounts for 5 to 25% of cases, ~~has a better prognosis and less severe~~

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side effects [1]. This is because pulmonary hypoplasia is often less severe or absent in these cases [2]. When diagnosed earlier, the prognosis for late-onset CDH is usuallygenerally favorable.

2. PRESENTATION OF CASE:

The reportedOur clinical case involvesis a 6-month-old male infant, from a non-consanguineous marriage. The, pregnancy was well attended and, carried to term, with the infant delivered vaginally and weighingvaginal delivery, birth weight 3200 grams, with a normal Apgar score. After being was normal. He was discharged from the hospital after 24 hours later, the infant and remained healthywell at home and. He had no history of trauma or falls.

However, the from height.
The infant later presented with febrile respiratory distress, preceded three days earlierbefore by viral prodromes. On, on clinical examination, the we found an apyretic infant was found to beon antipyretics, conscious, tonic, and normo-colored, but conjunctiva with a staturopendental delay of -2 standard deviations (weighinga weight at 4 kg and measuring, a height at 56 cm in height). The infant was also), polypneic, with a respiratory rate of at 62 cycles per minute, tachycardictachycardia at 126 beats per minute, and with an SO2 level ofat 92% in room air. Signs, with signs of respiratory struggle, such as sub-costal pulling, supra-sternal pulling with nasal wing flapping, andon auscultation he presents bilateral snoring and sibilant rales on auscultation, were also observed.

, the rest of the examination is without particularity.
A chest X-ray showed was performed and found a right apical atelectasis with a left-sided colothorax [Figfig. 1], and athe thoracic radiography of profile revealed, shows the colothorax in anterocardiac [Figfig. 2].

Paraclinical
The paraclinical workup found a normal blood count andwith a negative C-reactive protein, butthe respiratory multiplex polymerase chain reaction (PCR multiplex) revealedfound a respiratory syncytialsyncitial virus (RSV).

The infant was diagnosed withwho presents a first episode of acute viral bronchiolitis on a congenital diaphragmatic hernia terrain, and was treated with is put under nasal decongestion,desobstruction with tracheobronchial aspiration, oxygen therapy, and good hydration.

The infant's condition improved favorably, and with a favorable evolution, the patient wasis stabilized before being, then referred to the pediatric surgery service for surgical management.

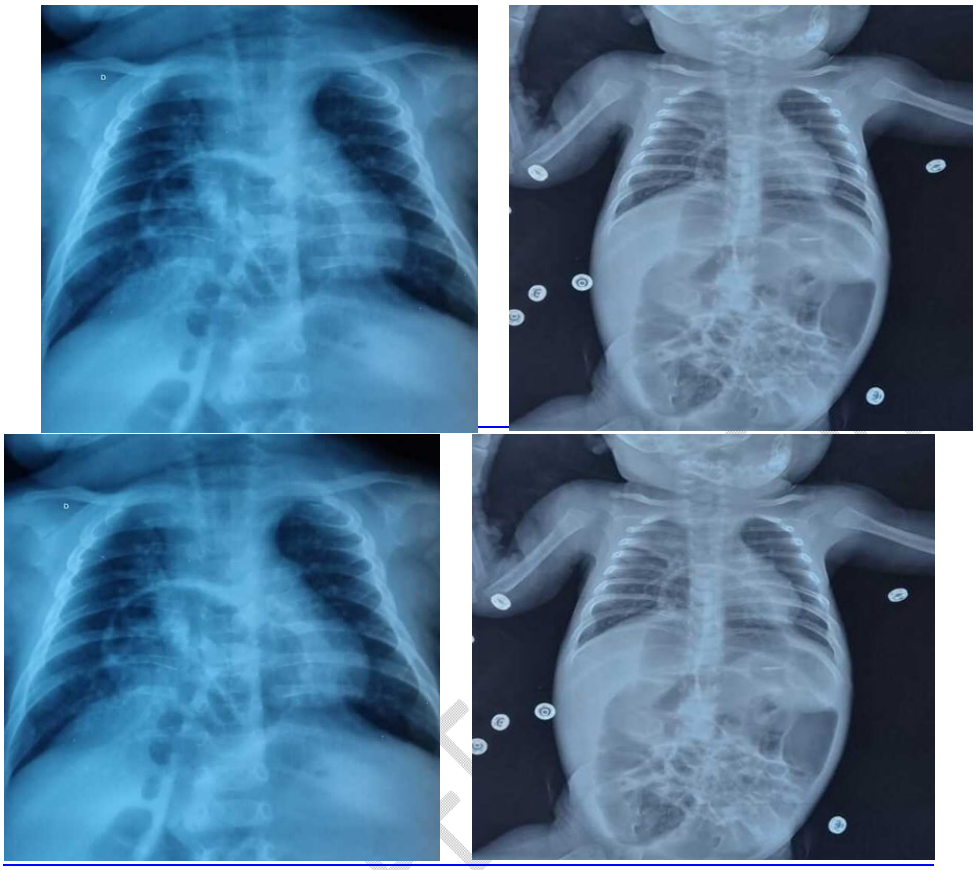
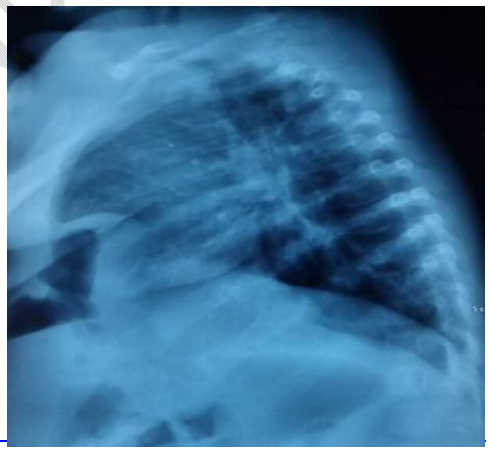


Fig.1 (a.b). A frontal chest X-ray was performed and found a right apical atelectasis with a left-sided colothorax.



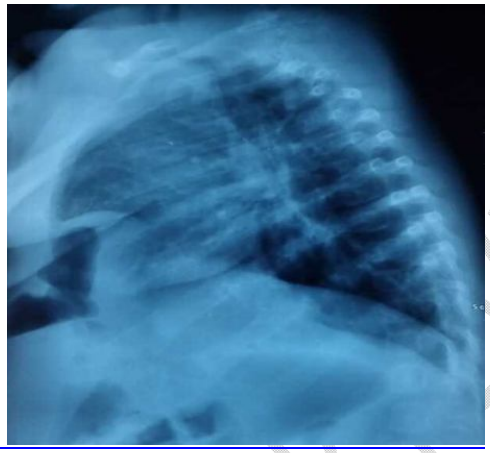


Fig.2. ~~The lateral~~ chest X-ray in profile, showing the colothorax in ~~an anterior location to~~ the ~~heart~~anterocardial region.

3. DISCUSSION:

~~Congenital diaphragmatic hernia (CDH) is an inherited disorder characterized by abnormal growth of the diaphragm, which affects one in 3000 newborns and has an overall survival rate of 67%. This condition is caused by a diaphragmatic tunnel that allows peritoneal viscera to protrude into the pleural cavity [3]. It is most commonly associated with neonatal respiratory distress, however, late-presenting CDH has lesser side effects and a better prognosis [1] due to milder or even absent pulmonary hypoplasia [2]. It represents 5 to 25% of cases, with a male-female ratio of about 2:1.4.~~

~~Its~~ A diaphragmatic hernia is a protrusion of abdominal contents into the chest cavity due to a defect in the diaphragm. It is most often a congenital phenomenon, but there are also cases where it can be acquired as a result of blunt or penetrating trauma, or sometimes spontaneously.

The late onset form presents 5 to 25% of cases, its diagnosis is difficult ~~due to~~because of its insidious onset [41], and ~~factors associated with~~ this ~~late presentation are poorly characterized [5]. Prolonged respiratory and gastrointestinal~~ either because of the initial symptoms ~~may be secondary to this etiology.~~

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~~Due to its milder and more complex clinical presentation, this type of CDH poses a significant diagnostic challenge [6]. It is~~ of late onset or an asymptomatic form discovered incidentally during a radiographic examination of the thorax beyond the neonatal period. the diagnosis is often established using the chest ~~radiography, and~~X-ray, sometimes the radiological diagnosis is difficult~~,~~ which can ~~lead to misdiagnosis. The~~direct towards an erroneous diagnosis, the hernia ~~may~~can simulate a pneumonia of the lower lobe ~~pneumonia.~~, a diaphragmatic eventration, a pneumothorax, a pleural effusion or even a diaphragmatic mass [~~7, 8], and~~2,3] , the chest X-ray may ~~even~~ appear normal before the onset of symptoms due to temporary obstruction of the diaphragmatic discontinuity by the liver or spleen~~.~~ .

, Associated with a ~~nonspecific~~non-specific clinical presentation, this can delay the diagnosis. In these cases, contrast ~~studies~~examinations of the gastrointestinal tract or a thoraco-abdominal CT scan ~~may aid in~~can guide the diagnosis [~~9~~4].

~~The content of the~~ Late presenting diaphragmatic hernia ~~is associated with the location of the defect. In the literature, the colon, small intestine, stomach and spleen have successively herniated in cases of left-sided CDH. The liver, small intestine and colon have been herniated in that order in cases of right-sided CDH [5]. In our case, due to the absence of intestinal malrotation, only organs adjacent to the defect or relatively mobile organs, such as the small intestine and transverse colon, were herniated.~~

~~The main complications of diaphragmatic hernias, aside from intrathoracic compressive consequences, are intestinal obstruction,~~has a more favorable prognosis due to less severe or even absent lung hypoplasia [5], when hernia ~~strangulation and perforation, which may present as peritonitis or mediastinitis.~~

~~Acute gastric volvulus associated with CDH is extremely rare but can have life-threatening complications. It is associated with elongation or absence of two of the four ligaments of the stomach with connection to the left diaphragm. There are three types of gastric volvulus: organo-axial, mesentero-axial or combined. It is often misdiagnosed as pneumothorax, pneumonia with cavitation, pleural effusion or pneumatoceles [10, 11, 12], and initial chest radiographs show a large air bubble with fluid level in the left side of the chest. This common error often leads to iatrogenic gastric perforation due to thoracic drain placement. And the increased intra-abdominal pressure can result in fatal outcomes, such as gastric strangulation, ischemia, perforation, pancreatitis, peritonitis, shock and death, with a mortality rate of 80% [11, 13].~~

formation precedes lung development, lung hypoplasia may occur and lead to severe respiratory impairment at birth. Early ~~surgical intervention is necessary~~surgery is needed to prevent ~~these~~ complications~~. Rapid~~ Prompt diagnosis is crucial to ~~avoid disruption of~~prevent the child's development from being disrupted and ~~potentially~~ life-threatening conditions~~.~~ from occurring including small bowel strangulation and arrest cardio-respiratory [6]. When surgical repair is performed promptly, the prognosis is generally favorable [~~1~~47].

4. CONCLUSION:

~~Congenital diaphragmatic hernia in neonates is a well-recognized condition, but its presentations beyond the neonatal period can vary, leading to clinical and radiological misdiagnoses. As such, it is~~

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~~important for all~~All pediatricians and pediatric surgeons ~~to~~should be made aware of the ~~possibility of~~ late~~-onset~~ presentation of congenital diaphragmatic hernia in their routine practice~~.~~

~~Early~~, because it's early diagnosis ~~of this condition is crucial and can be achieved through~~by thorough physical examination and ~~proper~~correct interpretation of imaging~~. This early diagnosis~~ allows for early management~~, which in turn can reduce~~ and the reduction of possible risks and complications ~~associated with the condition. Early~~, early surgical correction ~~is the most effective way to treat this condition and can save~~saves lives and cures.

~~Therefore, it is important to increase awareness of this condition and its potential presentations beyond the neonatal period to ensure timely diagnosis and treatment. By doing so, we can improve patient outcomes and prevent unnecessary morbidity and mortality.~~

5. REFERENCES:

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