Original Research Paper

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Respiratory Medicine

IDIOPATHIC SPONTANEOUS PNEUMOMEDIASTINUM-A UNIQUE PRESENTATION

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ABSTRACT Pneumomediastinum is the presence of free air in the mediastinum, otherwise known as Mediastinal emphysema. Pneumomediastinum can be divided into spontaneous and Traumatic pneumomediastinum is caused by blunt or penetrating trauma to chest or iatrogenic injuries such as that produced by mechanical ventilation, thoracic surgery or shoulder arthroscopies. A 20 year old male patient presented in emergency department with sudden onset of breathlessness and swelling in the neck with no history of trauma or surgery. Digital Chest xray and cect thorax showed pneumomediastinum and subcutaneous emphysema . Patient was treated with high flow oxygen and supportive care. Patient was discharged after 72 hour of admission

KEYWORDS :

Introduction:

is the Pneumomediastinum is the presence of free air in the mediastinum, otherwise known as Mediastinal emphysema. Pneumomediastinum can be divided into spontaneous and traumatic Traumatic pneumomediastinum is caused by blunt or penetrating trauma to chest or iatrogenic injuries such as that produced by mechanical ventilation, thoracic surgery or shoulder arthroscopies. Oesophageal rupture may also lead to pneumomediastinum which is of poor prognosis. When all secondary causes are ruled out then idiopathic spontaneous pneumomediastinum should be labeled.

Case report:

A 20 year old male patient presented in emergency department with sudden onset of breathlessness and swelling in the neck with no history of trauma or surgery. Patient gives history of weight lifting one hour prior to incident. On examination patient was conscious and vitally stable. Crepitations was present on palpation all over neck. Digital Chest x ray was done which showed excessive subcutaneous emphysema all over neck, lung parenchyma was normal and there was no evidence of penumothorax. USG neck also showed subcutaneous emphysema. CECT thorax was done and diagnosis of pneumomediastinum with no evidence of secondary lung diseases was made. Barium swallow was done and showed intact oesophagus. Patient was labeled as idiopathic spontaneous pneumomediastinum. Patient was treated with high flow oxygen and supportive care. Repeat CECT was done after 48 hours and showed no evidence of pneumomediastinum with complete resolution. Patient was discharged after 72 hour of admission.

Figure:1-Chest x-ray showing subcutaneous emphysema and pneumomediastinum.

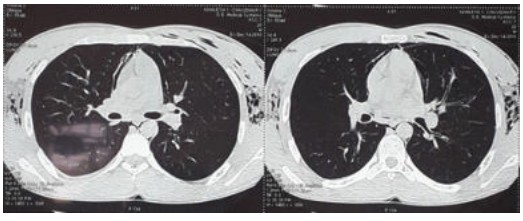

Figure:2- CT Thorax showing pneumomediastinum and subcutaneous emphysema bilaterally.

Discussion:

Idiopathic spontaneous pneumomediastinum is common in young adults .It is due to increase in airway pressure which leads to alveolar rupture or increase in strain against closed glottis during vomiting/ coughing or increase in lung volume after cocaine inhalation or convulsions. Patient presents mostly with subcutaneous emphysema .CECT Thorax confirms the diagnosis. All secondary causes of pneumomediastinum should be ruled out before labeling the patient as idiopathic spontaneous mediastinum. Treatment is supportive with oxygen therapy and observation.

Conclusion:

Idiopathic spontaneous pneumomediastinum is being a rare entity should be suspected in young adults presenting with subcutaneous emphysema with no secondary causes for pneumomediastinum .Treatment consists of displacing the trigger ,rest and administration of oxygen .Antibiotics or chest tube are reserved for specific etiologies and complications.

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