

## Dilatation And Curettage (D&C) In A Patient With Spontaneous Pneumothorax

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**Abstract** A 19year old primigravida with 12 weeks gestation was admitted in our hospital with bleeding per vagina (PV). She also complained of dyspnea, fatigue, chest pain. Her x-ray chest PA view showed evidence of pneumothorax. Emergency Inter costal drainage (ICD) was placed. After 24 hours she was posted for dilatation and curettage. General Anaesthesia was administered using injection 1 mg butorphanol, 100 mg propofol and 20 mg atracurium. Airway was secured with size 3 laryngeal mask airway (LMA). At the end of the procedure patient was reversed with neostigmine and glycopyrolate and shifted to MICU without any complication

**Key words:** Dilatation and Curettage, General Anaesthesia, Pneumothorax, Inter costal drainage, Thoracotomy

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### I. Introduction

Spontaneous pneumothorax during pregnancy is a rare condition. Few cases has been reported previously in the literature. There is no universal guideline for management of this condition. Treatment option include conservative management with inter costal drain (ICD) and surgical management in the form of thoracotomy or Video assisted thoracoscopy (VATS)

### II. Case history

A 19year old primigravida with 12 weeks gestation was admitted in our hospital with bleeding per vagina (PV). She also complained of dyspnea, fatigue, chest pain. After investigations (fig:1) she was diagnosed to have spontaneous pneumothorax. Emergency Inter costal drainage (ICD) (fig:2) was placed under local anaesthesia. Her symptoms were improved and after 24 hours she was posted for dilatation and curettage.

### III. Anaesthetic management

Patient was reassessed in the morning after obtaining written inform consent and kept nil per orally for liquids 3 hours before induction of anaesthesia. Intravenous Ranitidine 50 mg, Intramuscular Glycopyrolate 0.2 mg were given as pre medication. General Anaesthesia was administered with 1 mg butorphanol, 100 mg propofol and 20 mg atracurium. Airway was secured with size 3 laryngeal mask airway (LMA) (fig:3). Anaesthesia was maintained with 30:70 O<sub>2</sub>:N<sub>2</sub>O and 1% sevoflurane. At the end of the procedure patient was reversed with neostigmine and glycopyrolate and shifted to intensive care area for observation. 3 days later ICD was removed and patient was discharged home without any complication

### IV. Discussion

Primary spontaneous pneumothorax is defined as air in the pleural space that is between lung and chest wall. Spontaneous pneumothorax in pregnancy is extremely rare, with only 55 cases reported till now [1][2][5][6][7][8][9][10]. Review of cases showed that the patients are young between age group 20-30 years [11]. Pneumothorax occurred during first and second trimester in 51% and during perinatal period in 49% of patients [4]. In 29.6% patients initial treatment was observation, intercostal drainage in 66.6% and thoracotomy in 3.8% of patients. The aetiology of most pneumothorax occurring in pregnancy is rupture of apical blebs or bullae [11]. Signs and symptoms of pneumothorax include chest pain, progressive hypoxemia, tachycardia and respiratory distress [10]. Diagnosis of pneumothorax can be confirmed by chest radiograph and it is safe to proceed with standard chest radiography with abdominal shield without placing the fetus at substantial risk from ionizing radiation [2]. Treatment of acute pneumothorax in pregnancy or labour is identical to that of non-obstetric patients. Large pneumothorax (more than 20%) should be treated with tube thoracostomy [13]. Other treatment options are needle aspiration, needle decompression, pleurodesis, thoracotomy and thoracoscopy for recurrent, persistent or bilateral pneumothorax [7]

## V. Conclusion

Recurrent or persistent pneumothorax during pregnancy can be successfully managed by either thoracotomy or thoracoscopy. Safety of the procedure will be enhanced by appropriate anesthetic management, perioperative monitoring of the patient, therapy to inhibit preterm labor (when needed), and careful surgical technique.

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**Fig:1** Pneumothorax on chest x-ray (investigation)

