Dear Editor,

A 28-year-old male sustained head injuries during a road traffic accident 2 months prior. He had been admitted at an outside hospital and managed conservatively for intracranial bleed. He was subsequently tracheostomized and transferred to our hospital in view of new onset subcutaneous emphysema and probable pneumothorax. This apparently happened after an episode of tracheostomy tube block when the patient was vigorously ventilated by bag and mask.

On examination, he had normal vitals with crepitus on palpating the right side of his chest and neck. His chest radiograph [Figure 1] revealed pneumomediastinum and subcutaneous emphysema. His CT chest [Figure 2] showed a small left-sided pneumothorax with pneumomediastinum and air tracking into extrapleural intrathoracic fascia and subcutaneous emphysema.

Extrapleural intrathoracic air extends as a longitudinal column or remains trapped between fascial planes [Figure 3], and closely resembles a loculated pneumothorax. On keen observation, it can be noted that extrapleural air lies outside a wavy, thick pleural line while in pneumothorax a regular, thin visceral pleura separates the lung margin from the air. This can be difficult to delineate on a chest radiograph and a CT aids in further differentiation between extrapleural air and intrapleural pneumothorax\(^1,^2\) as mentioned in Table 1.

In our case, it was hypothesized that vigorous bag masking had caused alveolar rupture leading to pneumomediastinum.\(^3\) This can be explained by Macklin effect,\(^4\) wherein the air tracks along the pulmonary vasculature towards the mediastinum due to negative intrathoracic pressure resulting in a pneumomediastinum and subsequently a subcutaneous emphysema.

Usually the extra-pleural air is absorbed slowly resulting in spontaneous remission. It is necessary to differentiate it from a pneumothorax as the latter often requires placement of an intercostal tube drainage. As the pneumothorax on the left side was small in size with no respiratory or hemodynamic compromise, conservative treatment was continued with which the patient improved.

Extrapleural air is closely related to pneumomediastinum and it has to be differentiated from intrapleural pneumothorax

![Figure 1: Chest Radiograph demonstrating the continuous diaphragm sign (Δ) and subcutaneous emphysema (◊)](image)

![Figure 2: Axial and coronal reconstructions (lung window) thorax reveal presence of extrapleural air (*) with internal septations, with pneumothorax (arrow) outlining the lung margin. There is extensive subcutaneous emphysema along the chest wall](image)

| Table 1: Differentiating features between extrapleural air and pneumothorax |
|---------------------------------|-----------------|-----------------|
| **Extra-pleural air or pneumothorax** | **Intra-pleural Pneumothorax** |
| Change of position of air collection with gravity | Not much change | Usually assumes non-dependent position, unless loculated |
| Streaky lines or networks in the air collections | Present | Usually absent |
| Continuity with pneumomediastinum | On coronal reconstruction, apical air may be seen to be continuous with pneumomediastinum | The air is confined within the pleural space |
Dear Editor,

We report an unusual magnetic resonance imaging (MRI) appearance of Japanese Encephalitis (JE) that one has to be aware of in the appropriate clinical setting. We also highlight the role of 3D Arterial spin labelling (ASL) perfusion in JE.

A 62-year-old male was admitted in emergency department at Rajiv Gandhi Government General Hospital, Madras Medical College, Chennai, in a disoriented state with recurrent new onset seizures and fever. On examination, initially patient was restless, later he became drowsy and did not respond to oral commands. MRI was performed on 3T MR scanner (SIEMENS SKYRA). Standard Institute MRI Brain protocol was done along with 3D ASL Perfusion and Contrast study. T2-weighted images showed significant gyral edema in left fronto-parieto-temporal region and hyperintensity in left caudate, putamen and....

References