TABLE: 1 PROFILE OF CASES

S.No	Age of onset of symptoms	Age at surgery	Presenting features	Investigation	Lobe effected	Procedure	Complications and Outcome
1	7 day of life	2 months	Increasing respiratory distress and poor feeding	X.ray chest, C.T Scan, Perfusion scan	Left upper lobe	Elective thoracotomy, Lt: lobe lobectomy	Nil, Excellent
2	Since birth	40 days	Respiratory distress	X.ray chest, C.T Scan, Perfusion scan	Left upper lobe	Elective thoracotomy, Lt: lobe lobectomy	Nil, Excellent
3	Since birth	7 days	Incresing respiratory distress	Chest X-Ray	Left upper lobe	Urgent emergency lobectomy	Nil
4	1.5 months	2 months	Increasing respiratory distress	X.ray chest, C.T Scan, Perfusion scan	Left upper lobe	Elective thoracotomy, Lt: lobe lobectomy	Nil, Excellent

bronchoscopy. All had involvement of left upper lobe for which thoracotomy and left upper lobe lobectomy was done(Table1). Post operative course was uneventful except for one patient who developed peumothorax after removal of chest tube for which chest tube was reinserted and resolved later.

All children made uneventful recovery without any sequel. In follow-up, which ranged from 3 months to 5 years, no pulmonary sequelae was noted.

DISCUSSION

Congenital lobar emphysema is an uncommon cause of respiratory distress in neonates and infants resulting from air traping due to partial or incomplete obstruction of bronchus. It is more common in males with increase incidence reported in non white population.[2] Left upper lobe is most frequently involved followed by Right middle lobe and Right upper lobe, although bilateral involvement presents synchronously or metachronously have been reported[3].

CLE is characterised by overinflation of a segment of lung. Exact etiology is not known no apparent cause is founed in over 50% of the patients.[4] In certain cases congenital malformation of bronchial cartilage is been described[5]. Majority of patients presents as neonate with increasing respiratory distress, though is uncommon cause of distress in neonates but it is important to remember the possibility of disorder. Among surgical admission in neonates CLE accounts for important cause[6]. Increasing number of patients are now picked up antenatally[7]. It can be picked up prenataly by presence of water loaded lung which is homogenous in appearance and hence differntiate it from cystic adenomatoid malformation and Pulmonary sequestration. Though disorder isolated but some familial pattern is described[9,10]

Diagnosis is usually suspected on plain X.ray chest which shows hyperlucency of a segment of lung with compression atelactasis of surrounding lung and mediastinal displacement and herniation of lung to the opposite side. Further confirmation is made on C.T scan. Perfusion scan charectestically shows hypoperfusion of involved segment[11]. Role of bronchoscopy is debatable and can be done if mucus plug is suspected in older children. Bronchoscopy sometime may lead to acute hyperinflation. Essential treatment of symptomatic patient is surgical excision of involved lobe of the lung while historically is done through open thoracotomy . More and more experience is gained now doing lobectomy thoracoscopically[12,13] , but CLE it is difficult to deflate the lung hence access and procedure is more difficult[14].

In our series all children presented with progressive respiratory distress from neonatal period hence required surgical correction. But children presenting late after 2 months and symptoms are mild and non progressive can be managed expectantly as for antenatally diagnosed cases who are asymptomatic[15]. Algorithum suggested by Ibrehim