

Successful Removal of Foreign Body using Rigid Bronchoscopy

A 14 months old child developed severe wheezing and was hospitalised for 8 days elsewhere. After discharge, wheezing & mild tachypnea persisted. The patient's high-resolution computed tomography (HRCT) was done and treated as hyperactive airway disease.

7 days later, again got admitted elsewhere as the child had respiratory distress & wheezing. It was treated as lower respiratory tract infection. She was also screened **POSITIVE for COVID-19**. However distress worsened & severe hypoxia started.

Then the child was shifted to Apollo hospitals, Navi Mumbai with SpO₂ of 70 – 75 % on 100 Oxygen on high flow nasal cannula (**Type 1 respiratory failure**). In addition, **she was in cold shock**.

After arriving to Emergency room of Apollo hospitals, child was immediately intubated & ventilated. She also required fluid boluses F/B inotropic infusions for her hemodynamic stabilization. She was treated with nebulisations, steroids & antibiotics upgradation.

Child was NOT maintaining oxygen saturation of 90 % even on high PEEP & 100% Oxygen. Detailed history was taken & previous labs were considered. Her Chest X-ray was NOT showing significant lung involvement to explain the severe hypoxia.

Considering the severe hypoxia, ongoing symptoms of almost 3 weeks, **possibility of foreign body was considered**. CT chest was done which confirmed a foreign body blocking left main bronchus.

The case was discussed in the team and our experts decided to perform Rigid bronchoscopy. Considering the ongoing severe hypoxia, the procedure and course of treatment was explained and **high risk consent** was taken from parents.

The child underwent the procedure successfully and entire peanut was removed from the left main bronchus.

However, in spite of these, left lung was still completely collapsed. This seemed to be related to the foreign body obstructing the left lung for long duration. Hence child required PEEP titration, Chest physiotherapy, Mucolytic nebulisations & steroids.

Post-operatively, the child was doing well, and there were no respiratory complaints, no requirement of oxygen and was successfully extubated after 5 days of bronchoscopy.

Conclusion:

1. In an infant, sudden onset, persistent wheezing SHOULD always be assessed carefully to rule out foreign body.
2. Doing a rigid bronchoscopy in a severely hypoxic child is VERY DIFFICULT & can be life threatening. However, considering the clinical condition, that was the only therapeutic option. Hence procedure was done after taking HIGH RISK CONSENT.

3. At Apollo Hospitals Navi Mumbai, we have right expertise, multidisciplinary team, and advanced technology to perform such high-risk procedures.

Clinical Team:

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Dr Vandana Jawalkar, Consultant, Anesthesia

Dr Rahul Verma, Consultant, Pediatrics

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X-ray done outside hospital



X-ray after intubation



Obstructed left main bronchus



Foreign body (peanut) removed



Persisted left side collapse



X-ray after intubation