

## LUNG ABSCESS FROM ASPIRATED PEANUT WITH RECOVERY AFTER REMOVAL

### *Report of a Case*

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The following case is reported because it shows the very rapid recovery from a lung abscess which followed removal of the causative agent. This occurred in spite of the fact that the foreign body had been present for four weeks. This case also illustrates the danger of certain types of foreign bodies and the importance of repeating the bronchoscopic examination if the response is not at first satisfactory.

### REPORT OF CASE

The patient, a boy 5 years of age, was admitted on the medical service of Dr. John Tucker on June 24, 1938. The following history was obtained: Four weeks previously, severe cough, choking, and respiratory difficulty had developed while the child was eating peanuts. A day later, a bronchoscopic examination had been performed and a piece of peanut was removed from the right main bronchus. Within 24 hours edema and obstruction of the larynx developed and it became necessary to do a tracheotomy.

The cough persisted and had grown more severe during the preceding week. At the time of our examination it was productive of green pus. Since the onset of the illness, the temperature had been elevated in the morning and had been persistently high for the previous week. The patient had lost his appetite and refused to eat properly with a resultant loss of 9 pounds in weight. Sleep had been fitful and he had been complaining of aching in the arms and back.

The previous medical history was irrelevant except for pneumonia at the age of 6 months and measles 6 weeks before the onset of the present illness.

Examination revealed an ill child whose rectal temperature was 102.5° F., pulse rate 120, and respirations 40. The tracheotomy wound was closed in the depths but was not entirely healed at the skin surface. The pupils were equal and reacted normally to light. Examination of the nose showed the nasal septum to be somewhat irregular, the turbinates to be normal, and the middle meati clean. The teeth and tongue appeared to be normal. The tonsils were fairly large but showed no acute inflammation. The canals and drums of the ears were normal.

The expansion of the chest was good and equal. The percussion note over the right lower lobe posteriorly was flat, the breath sounds were absent, and transmission of the whispered and spoken voice showed a consolidated area in the right lower lobe. (Fig. 1.)

## LUNG ABSCESS FROM ASPIRATED PEANUT

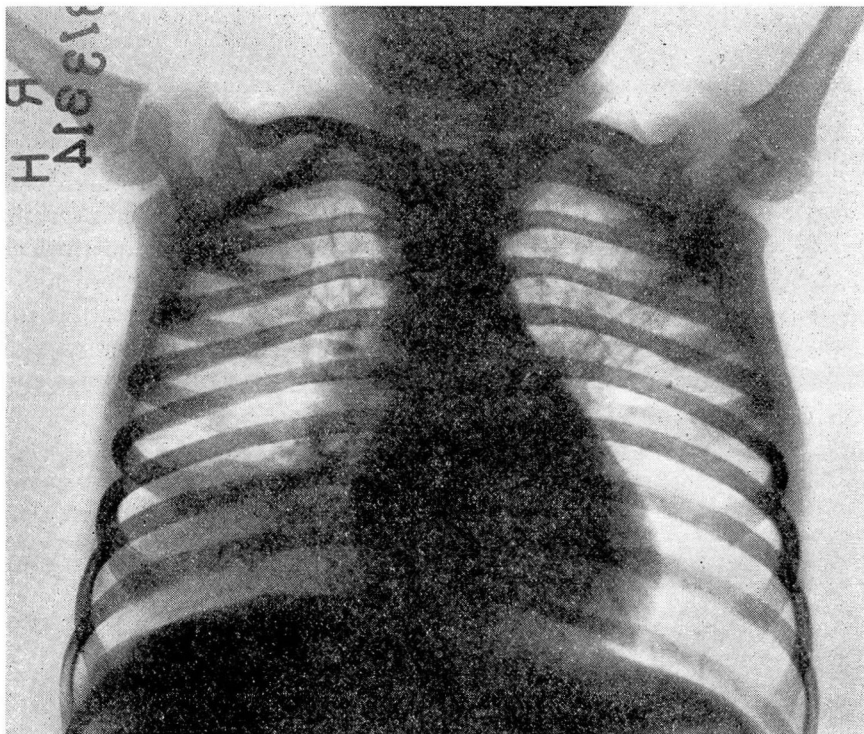


FIGURE 1: Roentgenogram showing lung abscess in lower lobe of right lung.

Examination of the blood showed 4,650,000 red cells, 15,100 white cells, and 67 per cent hemoglobin with 73 per cent neutrophils, 22 per cent lymphocytes, and 5 per cent monocytes. The blood group was two. The level of the blood sugar was 90 mg. per 100 cc. one hour fasting. The blood Wassermann and Kahn tests gave negative reactions. Examination of the urine showed a trace of albumin and 5 to 10 red blood cells per high power field; specific gravity 1.010; reaction 6.0; sugar 0. A culture of the sputum showed nonhemolytic streptococci.

A diagnosis of lung abscess was made.

I saw the patient in consultation with Dr. Tucker on the day of admission. We felt that, in all probability, a piece of peanut remained in the lung and that this was responsible for the continued suppuration. It was decided to use medical management and observe the patient for a few days before instituting further treatment. Sulfanilamide was administered, reaching a blood concentration of 18.0 mg. per 100 cc. Postural drainage and general supportive measures were employed.

During the next three days there was no improvement and the temperature ranged from 99.5 to 103.4° F. with one spike a day. Respirations



were about 40. On June 27, a bronchoscopic examination was performed under local anesthesia. One-half grain of nembutal was given one-half hour before the operation. The mouth and hypopharynx were sprayed with a 2 per cent solution of pontocaine. With this preparation, the child cooperated beautifully and the Jackson bronchoscope was passed easily. The corina was sharp and well defined, the left main and terminal bronchi were normal. The mucosa of the right main bronchus was injected and somewhat edematous. One of the terminal bronchi of the right lower lobe showed marked swelling of the mucosa and a small stream of pus was coming from it. As this bronchus dilated on inspiration, a piece of peanut could be seen. This was grasped with the peanut forceps. Fortunately, the fragment consisted of less than half a nut and could be removed through the bronchoscope. As the foreign body came out, a large amount of foul, somewhat sanguinous pus escaped. This was aspirated very thoroughly and the tip of the

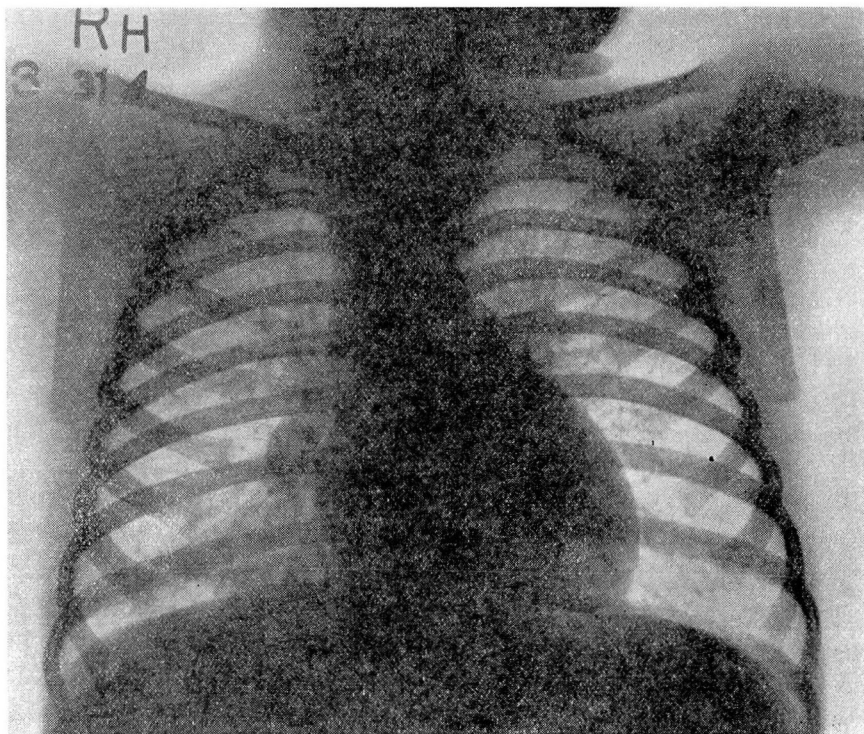


FIGURE 2: Roentgenogram showing the abscess cleared following removal of peanut.

aspirator was carried as far down into the bronchus as possible. A careful search was made for more fragments and two very small pieces were removed.

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The child was returned to bed in good condition and given steam inhalations of tincture of benzoin. No respiratory difficulty developed. At 4:00 o'clock in the afternoon, the temperature again rose sharply to 103.4° but it fell quite rapidly, reaching 97.6° F. at midnight. The next day the temperature remained between normal and 99.6° F. and the respirations were 40. The following day the temperature was normal and respirations dropped to 30, and then to 20 on the third day when he was discharged.

A roentgenogram of the chest taken on June 30, the day of discharge, showed less density in the area of pneumonitis.

The patient was seen again on July 14, seventeen days after operation. The temperature had remained normal, there was only a slight cough in the morning, the appetite was good, and he had gained 3 $\frac{3}{4}$  pounds. There was still some impairment of resonance and distant breath sounds over the base of the right lung but a roentgenogram (Fig. 2) of the chest showed the lungs to be clear except for some old fibrous scar tissue where the abscess had been. The white blood cells numbered 5,950.

### COMMENT

The tendency for vegetable foreign bodies, especially peanuts, to produce pneumonitis and lung abscess is well known. The persistence of lung suppuration for three weeks following the removal of a piece of peanut indicated the probability that a foreign body was still present. The prompt cessation of fever and other symptoms after removal of this remaining foreign body was very gratifying.

The use of a spray of a 2 per cent solution of pontocaine in the throat in children before endoscopy is perfectly safe. It produces a local anesthesia which eliminates pain and this combined with a small dose of some sedative such as nembutal makes it possible to secure a certain amount of cooperation from the child. Most children are good patients if they are not frightened or hurt and I believe they are entitled to as much consideration as an adult.