



Dept of Neonatology Centenary Hospital for Women and Children

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SEQUESTRATION OF THE LUNG

What is a sequestration of the lung?

Sequestration of the lung is a benign mass of non-functioning lung tissue that appears during early development. The mass does not have any connection to the airway and usually receives its blood supply from the aorta. The mass may occur within one of the lobes of the lung (intralobar), or outside the lobe of the lung (extralobar). There is no known cause for the condition. It is not a genetic condition and is unlikely to occur in future pregnancies.





 $http://www.med.umich.edu/fdtc/diagnoses/fetal_diagnoses/lung_malformations/sequestration.shtml$

Do they occur commonly?

This is a rare condition affecting 1 in 20-25,000 pregnancies.

Are there any other associated abnormalities?

Occasionally a sequestration of the lung may be associated with congenital defects of the heart, diaphragm or oesophagus (feeding tube). After birth your baby may have an ultrasound of the heart to see whether there are any structural defects in the heart.

How is a sequestration of the lung diagnosed?

In most babies with this condition, the diagnosis is made during an antenatal ultrasound scan. Some of the sequestrations will decrease in size or disappear by the end of the pregnancy. Others may continue to grow throughout the pregnancy, which may result in your baby having breathing difficulties after he/she is born. You will have regular ultrasounds throughout the latter part of the pregnancy to follow the progress of the mass.

How will this affect my baby?

If there is significant compression of the normal lung during a very important period of lung development (18-24 weeks gestation) this may result in pulmonary hypoplasia (small, poorly functioning lungs). If there is severe pulmonary hypoplasia a baby may not survive after birth as their lungs are too small and abnormally developed. If the mass is very large it may result in the baby becoming hydropic (increased fluid in the baby's tissues and organs). This can compromise the baby and early delivery may be required. The majority of babies will not have any fetal problems and will be healthy when born. A number of sequestrations may disappear altogether, but if the sequestration persists there is a risk of infection.

What is the treatment for a lung sequestration?

If your baby has no breathing difficulties at birth a CT scan (a form of x-ray that provides detailed pictures of the anatomy) of the chest will be arranged when your baby is 12 to 16 weeks of age. Your baby will require a short anaesthetic for the CT to enable accurate views to be obtained of the lung tissue and the blood supply. If the sequestration is still present your baby will be seen by one of the paediatric surgeons and plans made for the mass to be removed, usually around 6 months of age. This is generally done by an operation called a thoracotomy where the affected lobe of lung is removed. Occasionally it may be possible to achieve removal of the mass by thoracoscopy (using a telescope and tiny incisions). The majority of infants following surgery will have normal lung function after surgery.

If your baby has breathing difficulties at birth he/she will be admitted to the neonatal intensive care unit and provided with respiratory support. As noted previously some babies with severe pulmonary hyoplasia may not survive after birth. Respiratory support may include nasal CPAP (continuous positive airway pressure) where small plastic prongs placed in the baby's nose provide oxygen and air under pressure, or ventilation where your baby has their breathing supported by a machine, via a tube placed into his/her airway (trachea). An assessment will be made by the medical and surgical staff as to when investigations and surgery are required. If your baby has some degree of pulmonary hypoplasia, their lung function later in life may be decreased. However it will generally be enough to allow your child a normal life.

If you have any further questions please ask the medical and nursing staff.

Approved by Canberra Hospital Neonatal Intensive Care Unit, 2012 Revision Date 2015