

Cystic Adenomatous Malformation of the lung (CAM or congenital CAM (CCAM))

What is it?

A CAM is a lung hamartoma. Normal lung is made up of various pipes or bronchioles which branch ever smaller and end in little balloons or air sacs. Lung could be compared to a tree with ever smaller and smaller branches ending in leaves. In a CAM there is an over production of bronchioles (the twigs) and a lack of production of the air sacs (the leaves). This results in a non functioning portion of lung, which still communicates with the outside through the windpipe

Normal lungs

Our lungs are made up of two lobes on the left and three lobes on the right. The left lung is smaller because the heart sits in the left side of the chest. On ultrasound they appear as a light grey structure.

When a CAM is present it usually occupies one lobe or section of the lung although often on ultrasound it looks as though the whole lung is involved. Because of the way the abnormal lung is made it either contains many thousands of small cysts or a few smaller cysts. Sometimes there is a mixture of the two. With small cysts the lung appears brighter (whiter) than normal and with big cysts it appears to be full of black holes (cysts with fluid inside). This abnormal lobe or section of the lung is often bigger than it should be and as such it often moves the heart out of its normal position.

What does it mean for my baby?

In the majority of cases the long term outlook for the baby is very good. Firstly CAM of the lung are not usually associated with other problems in the baby. Secondly as the pregnancy progresses we usually see the abnormal lung stay the same size. As the rest of the baby increases in size in proportion it therefore in real terms shrinks. This usually occurs to such a degree that by the time of delivery we often can no longer see the abnormal area either on ultrasound before delivery or on X-ray afterwards. That does not mean it has disappeared and we may wish to do a different type of X-ray called a spiral CT.

Will my child need any future treatment?

If we think the abnormal area is very small and it does not cause your baby any problems then nothing further will need to be done. However if your baby has repeated chest infections because of infection getting into the abnormal area then it may need an operation to remove it.

Can it cause any problems in pregnancy?

Occasionally the abnormal area within the lung remains very large throughout the pregnancy and we may be worried about the amount of normal lung that your baby has. If this is the case we may decide that you should deliver in a centre where there are paediatric surgeons available to, if necessary, remove the abnormal area soon after birth. This is VERY rare, and usually when we recommend delivery in such a centre no treatment is required.

Very occasionally the baby develops a condition called hydrops (please see further information on our website). This is where there is a build up of fluid under the baby's skin and inside the chest and abdomen. We do not always know why this occurs but it is only usually seen in association with very large CAMs. Sometimes it is possible to drain large cysts to improve the baby's outlook but overall this rare feature is usually associated with a poor outcome.

Will I need more scans?

Usually we will arrange further scans every 4-8 weeks to check on the progress of the CAM. The timing will depend on the size of the lesion.

In conclusion

This is condition which often looks much worse at the time of the mid pregnancy scan than it does at delivery. In the majority (>95%) of cases the long term outlook is very good.