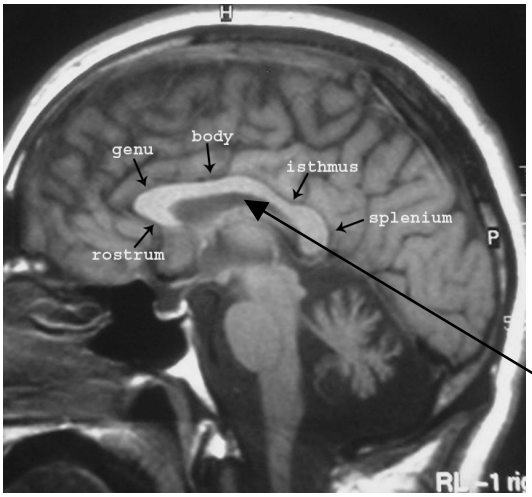
Agenesis of the Corpus Callosum

Carer information sheet

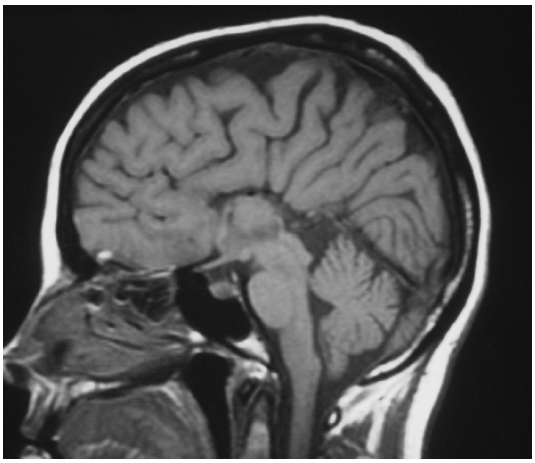
Agenesis of the corpus callosum (ACC) is a rare abnormality where the part of the brain which joins the two hemispheres/sides of the brain together in the middle does not form properly. This part of the brain is called the corpus callosum and is usually sausage shaped. The corpus callosum contains nerves which cross from one side of the brain to the other and help them communicate and co-ordinate their activities with each other.

The corpus callosum may be completely absent (this is referred to as agenesis), partially absent (this is referred to as partial agenesis) or be of an unusual shape (this is referred to as dysgenesis). Abnormalities of the corpus callosum are due to problems with foetal (the unborn baby's) brain development during the first trimester (the first three months) of pregnancy. ACC may be associated with other malformations of the brain, chromosomal abnormalities and genetic syndromes



A MR brain scan image of the middle of a normally developed brain showing the corpus callosum

The corpus callosum, including the names given to its various parts



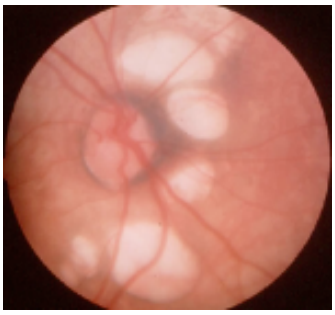
A MR brain scan image of an individual with agenesis (absence) of the corpus callosum (ACC)

Some individuals with abnormalities of the corpus callosum do not have any obvious associated problems or difficulties. However, more commonly abnormalities of the corpus callosum are associated with problems and difficulties with development,

learning, social interaction, physical skills, balance, sensation, behaviour and/or epilepsy. The extent of any such problems does vary from person to person.

Aicardi Syndrome

This is a rare genetic condition, primarily affecting girls, characterised by partial or complete absence of the corpus callosum, difficult to treat epilepsy and specific abnormalities of the back of the eyes. The epileptic seizures tend to start in the first year of life. Children with this condition often have unusual facial features, problems with stiffness or floppiness of their limbs, abnormalities of some of their bones, developmental delay and learning difficulties.



Fundoscopy (examination of the eyes) reveals several well-defined large patchy pale areas surrounding the optic disk. They represent chorioretinal lacunar defects, characteristic of Aicardi syndrome.

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