The MOMS trial is a NIH-sponsored multicenter clinical trial which began in 2002 to evaluate what was the best treatment for myelomeningocele: fetal surgery or surgical repair after birth.

The clinical trial results showed prenatal surgery significantly reduced the need to divert, or shunt, fluid away from the brain; improved mental development and motor function; and increased the likelihood that a child will walk unassisted. The MOMS trial has proved that some of the factors causing problems like Chiari II malformation and hydrocephalus are in fact those that develop during the second half of pregnancy. Closing the fetus’s back early may allow some nerve function to be restored in pregnancy, and actually reverse the development of this serious condition.

You can read the results of the MOMS trial in the New England Journal of Medicine: A Randomized Trial of Prenatal versus Postnatal Repair of Myelomeningocele.

Due to the success of the MOMS Study, fetal surgery is now considered to be a treatment option for some cases of myelomeningocele. For more information on treatment see our page on Spina Bifida (Myelomeningocele).
Links
[1] https://www.youtube.com/watch?v=i0YpaYitEF4
[4] https://fetus.ucsf.edu/node/183