Comment on Salman M: Posterior fossa decompression and the cerebellum in Chiari type II malformation: A preliminary MRI study

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The Chiari II malformation is the result of decompression of the embryonic vesicles and fetal ventricular system as a result of the open neural tube. This decompression causes a pancranial deformity from the calvarium through the foramen magnum. Closure of the open neural tube in early fetal life diminishes the severity of the hindbrain portion of the malformation and reduces the likelihood of hydrocephalus. While the cerebellar malformation may contribute to the intellectual impairment, there are also significant abnormalities in cerebrum that contribute to the development delay in these children.

We are following about 1,500 children and young adults with spina bifida and have a 35-year follow-up. In our

experience, it is quite unusual that an infant would require a posterior cervical decompression, (it is not a posterior fossa decompression, the lateral sinus is at the foramen magnum, the foramen is almost always widely open and cerebellum is sitting on the arch of C1. The tentorium is almost absent. The upper cerebellum sits in the middle fossa and lower portion is usually in the cervical canal. Occasionally, the entire cerebellum will be in the cervical canal.). A shunt is indicated if the infant shows signs of progressive hindbrain dysfunction. Back when cervical decompression was popular, we reviewed our results and showed that it was of little long-term benefit.

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