Children Have Better Outcomes Than Adults From Surgery

The Chicago Chiari Outcome Scale (CCOS) is a fairly recent addition to Chiari research, but is becoming more prevalent in published research. The scale uses four categories (pain, non-pain symptoms, function, complications), each scored 1-4, with 16 representing the best outcome. In a 2017 publication, a Michigan group used the CCOS to retrospectively look at whether age influences surgical outcomes. Specifically, they looked at 144 surgical patients and grouped them as under 18, 19-40, 41+. They found that the children (under 18) had significantly better outcomes than both adult groups, with an average score of over 15, versus in the 13 range for the adult groups. They also found that even within the under 18 group, that the younger children had better outcomes than older children. However among the adults, age was not correlated with the outcome score. These differences are likely attributed to what is called neuroplasticity, which is the ability of the brain and nervous system to adapt (or recover). As we age, neuroplasticity decreases and thus any damage is more difficult to recover from.