

Standardizing Post-Operative Care Reduces Time In Hospital

Surgeons in Oregon have found that implementing a standard protocol for post-operative care reduces how long children spend in the hospital after Chiari decompression. Previous studies have found that the average length of stay in the hospital for pediatric Chiari patients is 4-6 days, with longer stay times for those whose dura was opened as part of the procedure. In general, pain and nausea management are major issues that need to be dealt with as part of post-operative care, with one study finding that patients who experience nausea/vomiting after surgery stay in the hospital two days longer on average. With that in mind, three surgeons devised a standard post-operative regimen of regularly administered dosages of pain medication (a non-steroidal anti-inflammatory), a muscle relaxant, and anti-nausea medication. In addition, patients were given acetaminophen as needed for pain and stronger medication as needed for breakthrough pain. The surgeons also decided to remove patients' catheters on Day 1 and patients were walked to a hallway three times a day also starting on Day 1. To evaluate the impact of the new post-operative protocol the doctors compared 97 patients who were treated before the standard routine to 35 who were treated after the standard was implemented. The average age of all the patients was 9.5 years and all underwent a similar surgical procedure which included opening of the dura. Patients who experienced complications which precluded following the post-operative protocol were excluded from the analysis. The average hospital stay for the preprotocol group was 55.48 hours compared to 46.39 hours for the standard protocol group. In addition, while only 22% of the preprotocol group were discharged on Day 1, 40% of the standard protocol group were able to go home on Day 1. Finally, while 5 patients in the preprotocol group stayed more than 3 days in the hospital, all patients in the standard protocol group were discharged by Day 3. The post-op standard of care may also reduce hospital readmissions within the first 30 days, but more investigation is required to show that definitively. It may be quite a while before the whole pediatric neurosurgical community agrees on a post-operative standard of care, but this study shows working towards one is worthwhile.

Source: Standardizing postoperative care for pediatric intradural Chiari decompressions to decrease length of stay. Mazur-Hart DJ, Bowden SG, Pang BW, Yaghi NK, Nugent JG, Yablon LD, Domreis WO, Ohm ET, Sayama CM. J Neurosurg Pediatr. 2021 Aug 20:1-6.

Conquer Chiari's research updates highlight and summarize interesting publications from the medical literature while providing background and context. The summaries do contain some medical terminology and assume a general understanding of Chiari. Introductory information and many more research articles can be found at www.conquerchiari.org.