Research Update | May 2025

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Reduction of Tonsils During Surgery Improves Syrinx Outcomes

Surgeons in China found that reducing the size of the cerebellar tonsils during surgery (tonsillectomy) improved the outcomes of adults with Chiari and syringomyelia. They looked at 162 patients (interestingly, there were more men than women in the group), of which 58 underwent decompression surgery without tonsillar reduction and 104 underwent surgery with an average tonsillar volume reduction of 30%.

To assess outcomes, the surgeons used the Chicago Chiari Outcome Scale (CCOS0 and classified scores of 13+ as improved. Additionally, a 50% reduction or more in the size of the syrinx was considered improved. Both evaluations were done at least 6 months after surgery. For the CCOS scores, 79% of the tonsillectomy group improved compared to 57% of the no tonsillectomy group. Similarly, 76% of the tonsillectomy group saw an improvement in the size of their syrinx compared to 55% for the other group. While complication rates were roughly the same between the groups, the tonsillectomy patients did experience significantly longer surgery times and hospital stays.

Twenty plus years ago, when Conquer Chiari first started publishing Research Updates, there was a lot of controversy around removing tonsillar tissue during decompression surgery. Some surgeons argued vehemently against it, saying that it violated a core principle of neurosurgery to remove brain tissue unnecessarily. Others argued that the tonsillar tissue was clearly damaged. Today, there is very little controversy and removing some of the tonsils during surgery is generally accepted as a valid surgical choice.

Source: Clinical efficacy of surgery for patients with Chiari malformation type I with syringomyelia: posterior fossa decompression versus posterior fossa decompression with resection of tonsils. Zhang L, Li BL, Wei S, Hu HW, Chen HF, Fan YC, Zhang H, Ji PZ. Front Neurol. 2025 Mar 3;16:1556026. doi: 10.3389/fneur.2025.1556026. eCollection 2025. PMID: 40098683

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