Medulloblastoma surgery

- Growth Dynamics of Brain Tumor Through the Lens of MT-Weighted MRI
- A posterior fossa mass in a 4-year-old female
- Prospective insights into pediatric neurosurgery: transforming care through adverse event analysis
- Patterns, clinical presentations, and time to diagnosis in pediatric central nervous system tumors: insights from a pediatric neuro-oncology tumor board team at a tertiary referral hospital in Ethiopia
- A peptide vaccine targeting the CMV antigen pp65 in children and young adults with recurrent high-grade glioma and medulloblastoma: a phase 1 trial
- Focused ultrasound in pediatric neurosurgery: a scoping review of opportunities and challenges
- Impact of partial substitution of cisplatin with cyclophosphamide on acute toxicities in standard-risk medulloblastoma
- Children with medulloblastoma treated with modified ACNS0821 temozolomide, irinotecan, and bevacizumab: The Seattle Children's Hospital experience

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Surgical resection is undertaken with the goal of gross total resection. Postoperative neuroimaging studies are compared with preoperative studies to determine the amount of residual disease.

Once in the operating room, a frontal external ventricular drain is placed prior to positioning the patient prone for a midline suboccipital craniotomy with transvermian approach splitting the inferior aspect of the vermis

The prognostic benefit of increased extent of resection for patients with medulloblastoma is attenuated after molecular subgroup affiliation is taken into account. Although maximum safe surgical resection should remain the standard of care, surgical removal of small residual portions of medulloblastoma is not recommended when the likelihood of neurological morbidity is high because there is no definitive benefit to gross total resection compared with near total resection [1)].

Cerebrospinal fluid is obtained from a lumbar puncture done at the conclusion of the surgical resection or 2 weeks after surgery in order to determine microscopic leptomeningeal spread. Children are enrolled, when possible, in open clinical trials.

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Thompson EM, Hielscher T, Bouffet E, Remke M, Luu B, Gururangan S, McLendon RE, Bigner DD, Lipp ES, Perreault S, Cho YJ, Grant G, Kim SK, Lee JY, Rao AA, Giannini C, Li KK, Ng HK, Yao Y, Kumabe T, Tominaga T, Grajkowska WA, Perek-Polnik M, Low DC, Seow WT, Chang KT, Mora J, Pollack IF, Hamilton RL, Leary S, Moore AS, Ingram WJ, Hallahan AR, Jouvet A, Fèvre-Montange M, Vasiljevic A, Faure-Conter C, Shofuda T, Kagawa N, Hashimoto N, Jabado N, Weil AG, Gayden T, Wataya T, Shalaby T, Grotzer M, Zitterbart K, Sterba J, Kren L, Hortobágyi T, Klekner A, László B, Pócza T, Hauser P, Schüller U, Jung S, Jang WY, French PJ, Kros JM, van Veelen MC, Massimi L, Leonard JR, Rubin JB, Vibhakar R, Chambless LB, Cooper MK, Thompson RC, Faria CC, Carvalho A, Nunes S, Pimentel J, Fan X, Muraszko KM, López-Aguilar E, Lyden D, Garzia L, Shih DJ, Kijima N, Schneider C, Adamski J, Northcott PA, Kool M, Jones DT, Chan JA, Nikolic A, Garre ML, Van Meir EG, Osuka S, Olson JJ, Jahangiri A, Castro BA, Gupta N, Weiss WA, Moxon-Emre I, Mabbott DJ, Lassaletta A, Hawkins CE, Tabori U, Drake J, Kulkarni A, Dirks P, Rutka JT, Korshunov A, Pfister SM, Packer RJ, Ramaswamy V, Taylor MD.

Prognostic value of medulloblastoma extent of resection after accounting for molecular subgroup: a retrospective integrated clinical and molecular analysis. Lancet Oncol. 2016 Mar 11. pii: S1470-2045(15)00581-1. doi: 10.1016/S1470-2045(15)00581-1. [Epub ahead of print] PubMed PMID: 26976201.