Pilocytic astrocytoma recurrence

Symptomatic recurrences were common in infratentorial PAs. Radiology, histopathology, and proliferative indices did not offer any prognostic information. Angiogenesis markers such as endothelial proliferation and VEFG expression did not predict early symptomatic recurrence. Diffuse VEGF expression and endothelial proliferation were observed in tumors that showed strong contrast enhancement [1].

Prevention

Pilocytic astrocytoma in adult patients, surprisingly, often was not a benign disease. The degree of surgical resection was found to be of major importance for the patient's further clinical course; therefore, an aggressive surgical resection should be attempted whenever possible [2].

Recurrence is more likely after STR, and the goal of surgery should always be GTR when feasible [3].

Treatment

the appropriate treatment is unclear. Options include chemotherapy, radiation therapy, surgical resection or a combination thereof. To analyze the utility of further surgery, we performed a retrospective, single-institution review of pediatric patients with recurrent PAs from 1990 to 1999 who were treated with a second surgical resection. Patients were excluded if they received adjuvant chemotherapy or radiation therapy. Twenty cases were identified. Tumor locations included: cerebral hemisphere (3), cerebellum (7), optic pathway/hypothalamus (5), thalamus (1) and brainstem (4). The indication for 4 surgeries included an enlarging tumor-associated cyst. At second surgery, 10 of 20 patients had a gross total resection (GTR), 2 a near total resection (NTR), and the remaining 8 patients had a subtotal resection (STR). No patients have died. Two of 10 tumors after GTR, 0 of 2 tumors after NTR, and 7 of 8 tumors after STR had second recurrence/progression at a mean of 15 months (range 4-33 months) following second surgery. The remaining 11 patients are recurrence/progression-free at a mean of 40.7 months (range 19-119 months). Surgery for tumors or midline structures rarely resulted in a GTR (1 of 10 cases). Surgery for tumors located in the cerebral hemispheres or cerebellum resulted in GTR or NTR in all cases and can result in long periods of progression-free survival without further adjuvant treatment [4].

1)
Kurwale NS, Suri V, Suri A, Sarkar C, Gupta DK, Sharma BS, Mahapatra AK. Predictive factors for early symptomatic recurrence in pilocytic astrocytoma: does angiogenesis have a role to play? J Clin Neurosci. 2011 Apr;18(4):472-7. doi: 10.1016/j.jocn.2010.04.055. Epub 2011 Feb 2. PMID: 21292490.
2)
Stüer C, Vilz B, Majores M, Becker A, Schramm J, Simon M. Frequent recurrence and progression in pilocytic astrocytoma in adults. Cancer. 2007 Dec 15;110(12):2799-808. doi: 10.1002/cncr.23148. PMID: 17973253.
3)
Bond KM, Hughes JD, Porter AL, Orina J, Fang S, Parney IF. Adult Pilocytic Astrocytoma: An Institutional

Series and Systematic Literature Review for Extent of Resection and Recurrence. World Neurosurg. 2018 Feb;110:276-283. doi: 10.1016/j.wneu.2017.11.102. Epub 2017 Nov 24. PMID: 29180079.

4) Bowers DC, Krause TP, Aronson LJ, Barzi A, Burger PC, Carson BS, Weingart JD, Wharam MD, Melhem ER, Cohen KJ. Second surgery for recurrent pilocytic astrocytoma in children. Pediatr Neurosurg. 2001 May;34(5):229-34. doi: 10.1159/000056027. PMID: 11423771.

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