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## **Application of cyberknife for the treatment of juvenile nasopharyngeal angiofibroma: a case report.**

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Juvenile nasopharyngeal angiofibroma (JNA) tumors can be locally destructive when they spread submucosally. The purpose of this study was to present an image-guided, robotic radiotherapy (Cyberknife) to successfully treat a 12-year-old boy with Juvenile nasopharyngeal angiofibroma (JNA). He complained of progressive right nasal obstruction, intermittent epistaxis. Computed tomography (CT), and magnetic resonance imaging (MRI) revealed the presence of a tumor in the right nasal cavity and nasopharynx with significant hypervascularization from the right maxillary artery. Pathological findings confirmed the diagnosis of JNA. Surgical treatment was recommended but refused by religious reasons. We initially treated the patient with external-beam radiation therapy (total treatments, 12; total dose, 2400 cGy), which, after 7 months, failed to reduce the size of the tumor or relieve the patient's symptoms. We subsequently treated the patient with Cyberknife therapy (total treatments, 3; total dose, 4512 cGy) and observed almost complete disappearance of the tumor after 7 months. After 2 years of observation, there has been no tumor recurrence. Cyberknife therapy is compared with other therapeutic options for JNA, and its benefits are discussed in the context of the findings in the literature.

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