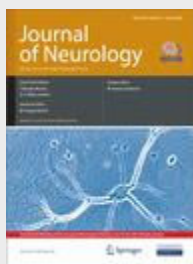


Journal Article



Natural history and management of brainstem gliomas in adults

A retrospective Italian study

Journal	Journal of Neurology
Publisher	Steinkopff
ISSN	0340-5354 (Print) 1432-1459 (Online)
Issue	Volume 255, Number 2 / February, 2008
Category	ORIGINAL COMMUNICATION
DOI	10.1007/s00415-008-0589-0
Pages	171-177
Subject Collection	Medicine
SpringerLink Date	Friday, February 22, 2008

A. Salmaggi¹✉, L. Fariselli¹, I. Milanese¹, E. Lamperti¹, A. Silvani¹, A. Bizzi¹, E. Maccagnano¹, E. Trevisan², E. Laguzzi², R. Rudà², A. Boiardi¹, R. Soffietti² and on behalf of AINO (Associazione Italiana di Neuro-oncologia)

- (1) Dept. of Neuro-oncology, Istituto Nazionale Neurologico, C. Besta, Milan, Via Celoria 11, 20133 Milan, Italy
- (2) Division of Neuro-oncology, Depts. Neuroscience and Oncology, University and San Giovanni Battista Hospital, Turin, Italy

Received: 7 September 2006 **Revised:** 26 February 2007 **Accepted:** 13 March 2007 **Published online:** 25 February 2008

Abstract Brainstem gliomas in adults are rare tumors, with heterogeneous clinical course; only a few studies in the MRI era describe the features in consistent groups of patients. In this retrospective study, we report clinical features at onset, imaging characteristics and subsequent course in a group of 34 adult patients with either histologically proven or clinico-radiologically diagnosed brainstem gliomas followed at two centers in Northern Italy. Of the patients 18 were male, 14 female, with a median age of 31. In 21 of the patients histology was obtained and in 20 it was informative (2 pilocytic astrocytoma, 9 low-grade astrocytoma, 8 anaplastic astrocytoma and 1 glioblastoma). Contrast enhancement at MRI was present in 14 patients. In all of the 9 patients who were investigated with MR spectroscopy, the Cho/NAA ratio was elevated at diagnosis. In 8 of the patients, an initial watch and wait policy was adopted, while 24 were treated shortly after diagnosis with either radiotherapy alone [4] or radiotherapy and chemotherapy [20] (mostly temozolomide). Only minor radiological responses were observed after treatments; in a significant proportion of patients (9 out of 15) clinical improvement during therapy occurred in the context of radiologically (MRI) stable disease. Grade III or IV myelotoxicity was observed in 6 patients. After a follow-up ranging from 9 to 180 months, all but 2 patients have progressed and 14 have died (12 for disease progression, 2 for pulmonary embolism). Median overall survival time was of 59 months. Investigation of putative prognostically relevant parameters showed that a short time between disease onset and diagnosis was related to a shorter survival. Compared with literature data, our study confirms the clinical and radiological heterogeneity of adult brainstem gliomas and underscores the need for multicenter trials in order to assess the efficacy of treatments in these tumors.

Key words brainstem glioma - adults - history - management

✉ **A. Salmaggi**

Email: salmaggi@istituto-besta.it

References secured to subscribers.

Copyright ©2008, Springer. All Rights Reserved.