Investigation of leptomeningeal disease in high grade glioma and characterization of molecular alterations

Madison L. Shoaf, Michael Glantz, Kyle Tuohy, Frances Chow, Joanne Xiu, Sonikpreet Aulakh, David M. Ashley, Eric S. Lipp, Giselle Y. López, Ashley Sumrall, Phillip Walker, David Spetzler, Theodore Nicolaides, Manmeet Ahluwalia, Katherine B. Peters

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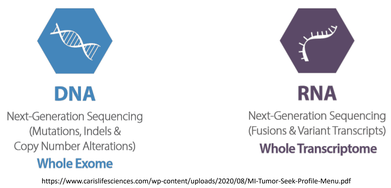
mshoaf@emory.edu

Background/Methods:

- Leptomeningeal disease (LMD) is a challenging complication of high grade glioma (HGG) and questions remain regarding risk factors, molecular associations, and optimal treatment. Here we report updated results on a larger cohort from our previously reported multi-center study (Shoaf et al. 2022, Neuro-Oncology [Abstract]).
- Patients with molecularly-profiled HGG (Caris Life Sciences; Phoenix, AZ) with LMD at 3 institutions were included. Medical records were reviewed for clinicopathologic characteristics and outcome, and Next Generation Sequencing was performed.



Patient Demographics:

n= 20 ; 52

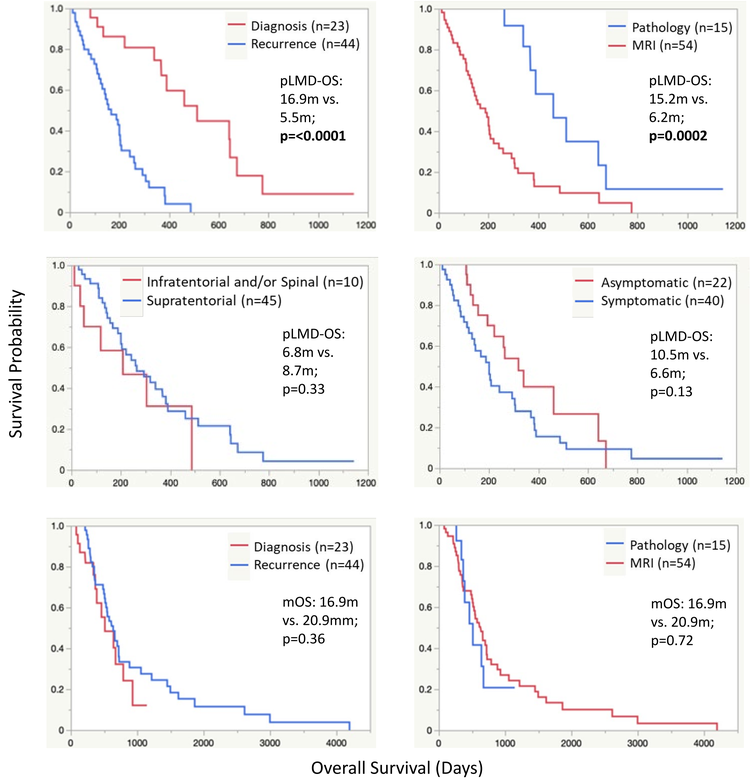
Median age:
54.5 yrs
(43-68 yrs)

Anaplastic astrocytoma	4
Glioblastoma multiforme	62
Gliosarcoma	2
H3K27M diffuse midline glioma	1
Pleomorphic xanthoastrocytoma	1
Astrocytoma, NOS	1

LMD is more common in male patients and may be associated with various genomic alterations and tumor microenvironment differences. Overall survival does not differ from patients without LMD, but these differences may provide clues to the pathogenesis and treatment resistance of HGG.

Results:

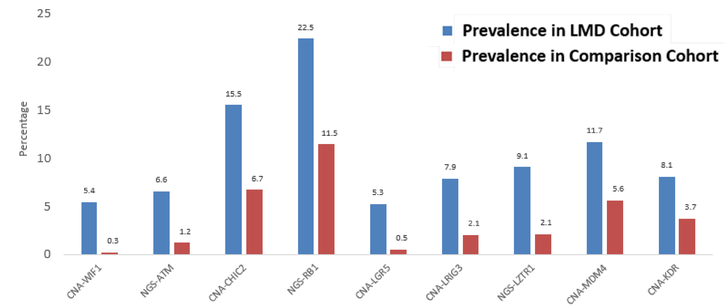
Post-LMD Survival



mOS

Results cont.:

Molecular Alterations



Tumor Microenvironment: Immune-Related Genes & Cell Populations