

XXXIII CONGRESSO NAZIONALE AIRO

AIRO2023

BOLOGNA,
27-29 OTTOBRE 2023

PALAZZO DEI CONGRESSI

Radioterapia Oncologica: l'evoluzione al servizio dei pazienti



Associazione Italiana
Radioterapia e Oncologia clinica

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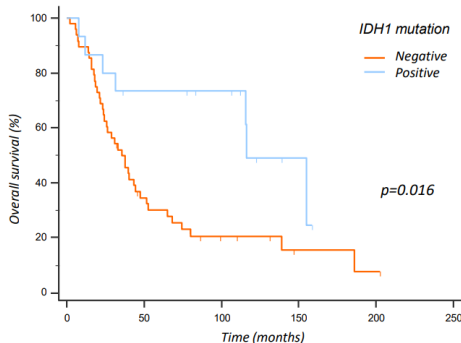
IDH1 mutation detected in liquid biopsy is associated with survival outcome in glioma patients treated with postoperative radiotherapy

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The present study evaluates the correlation between the IDH1 mutation detected in cfDNA with survival (primary endpoint) and clinical characteristics in glioma patients **treated with RT**.

A total of 67 patients with glioma were enrolled (treated between 2015 and 2018). IDH1 p.R132H mutation analysis was performed on a digital droplet PCR.

A promising concordance between IDH1 status in tissue and in plasma was found ($p=0.0004$)



Overall survival of glioma patients stratified as per IDH1 mutational status detected in tissue
116.3 months vs 35.8, $p=0.016$

	T+	T-	P value
P+	10	5	0.0004
P-	10	42	

Concordance table for the presence of the IDH1 mutation both in tissue and in plasma

Conclusions. This study shows that liquid biopsy is a useful tool in brain tumors to detect molecular alterations. IDH1 mutation detected in liquid biopsy constitutes an important prognostic biomarker in patients with different types of gliomas, being associated to OS.