The discovery of 1p and 19q chromosomal arms deletion in glial tumors influences both more objective diagnosis and more accurate prediction of chemotherapy response.

As a result an attempt has been made to detect deletion using fluorescence in-situ hybridization (FISH) and analyzed its prognostic value in a cohort of glial tumor patients from Amrita Institute of Medical Sciences and Research Center Kochi.

FISH was performed on 66 FFPE tissue sections by using Vyis LSI 1p36/LSI 1q25 and LSI 19p13/LSI 19q13dual coloured FISH probe sets. Signals were scored from at least 150-250 non-overlapping, intact nuclei. 163 cases were analyzed. Both 1p and 19q deletions was observed only in 28/163 (17.17%), - 1p/+ 19q deletion 80/163 (49.07%) and +1p/-19q deletion 55/163 (33.74%).

In this work presented the FISH was successfully applied to identify deletion 1p/19q. Its incidence depends on the type of diagnosed gliomas. In contrast to reported data, the present study reveals 49.07% deletion - 1p/19q.

Deletions also have prognostic significance in the test group what constitutes the basis for inclusion of determining deletion 1p/19q into diagnostic and treatment algorithm.

**Keywords:** FISH, deletion 1p/19q, glioma