Circulating biomarker

Liquid biopsy approaches for detection of circulating biomarkers of cancer have been utilized in oncology in many clinical settings from early detection to disease monitoring. Recent approaches have focused on circulating tumor cells, circulating tumor DNA, and circulating RNAs in a variety of biofluids. However, very little progress has been made in implementing such approaches for detection of brain tumors, despite the tremendous clinical need for earlier and less invasive diagnosis, as well as more accurate assessment of disease status. In a review, Mathios and Phallen highlight the recent methodological improvements in the field of liquid biopsy technologies specifically for glioblastoma. Although many retrospective and few prospective studies have been conducted to assess the utility of circulating biomarkers for detection of brain tumors, none have yet moved forward to clinical implementation [1)]

It is of great importance to seek further subclassifications in glioblastoma multiforme, biomarkers, and new treatment modalities to make a significant change in survival for individuals [2)].

1)
Mathios D, Phallen J. Circulating Biomarkers in Glioblastoma: Ready for Prime Time? Cancer J. 2021 Sep-Oct 01;27(5):404-409. doi: 10.1097/PPO.0000000000000541. PMID: 34570455.
2)
Fekete B, Werlenius K, Örndal C, Rydenhag B. Prognostic factors for glioblastoma patients - a clinical population-based study. Acta Neurol Scand. 2016 Jun;133(6):434-41. doi: 10.1111/ane.12481. Epub 2015 Sep 11. PubMed PMID: 26358197.