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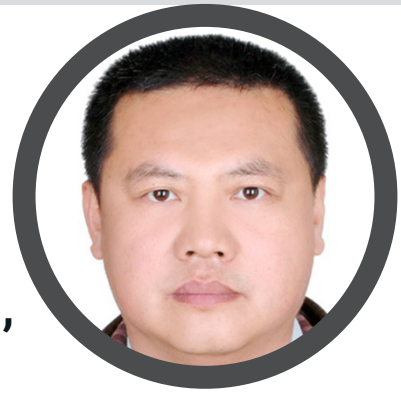
EARLY CANDIDATE BIOMARKERS FOUND FROM URINE OF GLIOBLASTOMA MULTIFORME RAT BEFORE CHANGES IN MRI



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Astrocytoma is the most common aggressive glioma and its early diagnosis remains difficult. Biomarkers are changes associated with the disease. Urine, which is not regulated by homeostatic mechanisms, accumulates changes and therefore is a better source for biomarker discovery. In this study, C6 cells were injected into wistar rats' brain as astrocytoma model. Urine samples were collected at day 2, day 6, day 10 and day 13 after injection, and the urinary proteomes were analyzed. On the 10th day, lesions appeared in magnetic resonance imaging. On the 13th day, clinical symptoms started. But differential urinary proteins were changed with the development of the astrocytoma, and can provide clues even on the 2nd and 6th day. Twenty seven differential proteins with human orthologs had been reported to associate with astrocytoma. A panel of differential urinary proteins may provide sensitive early biomarkers for the early diagnose of astrocytoma.

Biography

Youhe Gao, currently serving as a Professor at Beijing Normal University, China. He received his MD from Peking Union Medical College, his PhD from University of Connecticut and Postdoctoral training from Beth Israel Deaconess Medical Center, Harvard Medical School. He was the Professor at Department of Pathophysiology, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences/ Peking Union Medical College from 2001-2014. His research interests include Biomarker Discovery in Urine, Urine Biobanking, Protein Interaction Methods and Related Bioinformatics.

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