Acta Scientific Neurology

Volume 2 Issue 9 September 2019

Editorial

Seizure Warning System; A New Class of Epilepsy Biomarker Identified

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Received: June 20, 2019; **Published:** August 01, 2019

Introduction

Epilepsy is a chronic neurological disorder characterized by repeated seizures [1]. It is estimated that more than 50 million people worldwide are affected [2]. Epilepsy is responsible for 0.3 per cent of all deaths worldwide.1 Video-EEG monitoring is an important tool for confirming the seizure type and estimating the epileptogenic zone in the brain [3].

Epilepsy biomarkers

From the patient-doctor point of view, if the seizures are predictable, it would promote better control in the patient's routine life and promote safety. Recent research shows that Circulating blood-based biomarkers may help predict seizures before they occur. Because of the easy sample collection methods and profligate analysis, these biomolecules epitomize a desirable source of epilepsy biomarkers [4].

Transfer RNAs (tRNAs)

During the process of protein synthesis, the noncoding RNAs transport the amino acids to the ribosome. In almost all unicellular organisms, breakdown of tRNAs befalls as part of an exceedingly well-preserved stress retort. Where as in human beings, the cleavage of tRNA into fragments are engendered by ribonucleases such as Dicer and angiogenin.

The tRNA fragments are ideal entrants for investigation as biomarkers. As they are protected from degradation and hence will be circulating in the blood. These tRNA fragments has several functions such as, regulation of gene expression inhibition of protein translation, instigation of stress granule development [4].

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