Relative protein levels of GFAP, MT-I/II, and AQP4 were significantly higher in

subjects with medical temporal lobe epilepsy than seen in controls. Medial temporal lobe epilepsy subjects with mental disorder or depression had elevated MT-I/II protein level than healthy controls and medial temporal lobe epilepsy subjects without mental disorders. Protein levels of GFAP and AQP4 in medial temporal lobe epilepsy subjects with mental disorder or depression were significantly lower than that in medial temporal lobe epilepsy subjects with no mental disorder.It is concluded that the functional changes in hippocampus astrocytes are associated with mental disorders of medial temporal lobe epilepsy subjects, and astrogliosis-related genes GFAP, MT-I/II and AQP4, are involved in this process.