World Academy of Science, Engineering and Technology
International Journal of Biomedical and Biological Engineering
Vol:10, No:12, 2016

Brain Stem Posterior Reversible Encephalopathy Syndrome in Nephrotic Syndrome

Authors : S. H. Jang

Abstract : Posterior reversible encephalopathy syndrome (PRES) is characterized by acute neurologic symptoms (visual loss, headache, altered mentality and seizures) and by typical imaging findings (bilateral subcortical and cortical edema with predominatly posterior distribution). Nephrotic syndrome is a syndrome comprising signs of proteinuria, hypoalbuminemia, and edema. It is well known that hypertension predispose patient with nephrotic syndrome to PRES. A 45-year old male was referred for suddenly developed vertigo, disequilibrium. He had previous history of nephrotic syndrome. His medical history included diabetes controlled with medication. He was hospitalized because of generalized edema a few days ago. His vital signs were stable. On neurologic examination, his mental state was alert. Horizontal nystagmus to right side on return to primary position was observed. He showed good grade motor weakness and ataxia in right upper and lower limbs without other sensory abnormality. Brain MRI showed increased signal intensity in FLAIR image, decreased signal intensity in T1 image and focal enhanced lesion in T1 contrast image at whole midbrain, pons and cerebellar peduncle symmetrically, which was compatible with vasogenic edema. Laboratory findings showed severe proteinuria and hypoalbuminemia. He was given intravenous dexamethasone and diuretics to reduce vasogenic edema and raise the intra-vascular osmotic pressure. Nystagmus, motor weakness and limb ataxia improved gradually over 2 weeks; He recovered without any neurologic symptom and sign. Follow-up MRI showed decreased vasogenic edema fairly. We report a case of brain stem PRES in normotensive, nephrotic syndrome patient.

Keywords : posterior reversible encephalopathy syndrome, MRI, nephrotic syndrome, vasogenic brain edema
Conference Title : ICR 2016 : International Conference on Radiology
Conference Location : Bangkok, Thailand
Conference Dates : December 12-13, 2016