

FATAL HEPATO-RENAL SYNDROME WITHOUT CIRRHOSIS INDUCED BY BUDD-CHIARI SYNDROME

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Hepato-Renal Syndrome (HRS) usually causes decline in renal perfusion causing decrease in glomerular filtration rate with sodium excretion and splanchnic vasodilatation. We present a case of fatal HRS leading to death from budd-chiari syndrome.

The patient was a 21-year-old gentleman who noticed weight gain around his abdomen for two months. On investigation, was found to have Budd Chiari syndrome with ascites. Patient was treated with diuretics and multiple episodes of paracentesis. Cirrhosis was suspected and the patient had a first transjugular liver biopsy along with portal pressure measurement that showed normal sinusoidal pressure gradient without any overt cirrhosis or significant necrosis. On diuretics, patient developed hyponatremia (116), hyperkalemia (5.7) and worsening serum creatinine in 8 weeks (1.9) from a baseline of 0.8 with progressive hypotensive episodes. Patient's urine showed sodium of 5 and osmolality of 381 without any proteinuria, RBCs or WBCs. Fractional excretion of sodium was less than one percent. There was no evidence of other apparent cause for the renal disease, including shock, ongoing bacterial infection, recent treatment with nephrotoxic drugs, and there was no ultrasonographic evidence of obstruction or parenchymal renal disease. Patient was started on midodrine at home, octreotide and albumin during hospitalizations for low blood pressures. Diuretics were held due to hyponatremia and hypotension although there was not a significant improvement in renal function. Patient had a second liver biopsy which still did not show any cirrhosis of the liver except for high sinusoidal pressures and some fibrosis. Patient had a mesocaval shunt placed which improved the renal dysfunction, however, patient had a fatal death due to hepatic encephalopathy. Budd-chiari syndrome without cirrhosis, causing hepatic congestion and veno-caval hypertension can be a potential cause of HRS like condition. Renal vascular abnormality exists with hepatic congestion in the absence of cirrhosis.