

## Reversible minimal change nephrotic syndrome and glomerular IgA deposition associated with non-parenteral heroin abuse: A case report

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**Introduction:** Diacetylmorphine (heroin), the most commonly abused drug, may result in several renal complications. A spectrum of glomerular abnormalities including focal segmental glomerulosclerosis, amyloidosis, focal glomerular sclerosis, minimal-change disease, mesangial proliferation, and membranoproliferative glomerulonephritis have been reported in heroin users with renal disease. Herein, we report a case of reversible minimal change nephrotic syndrome and immunoglobulin A (IgA) deposition in glomeruli associated with heroin.

**Clinical Presentation and Intervention:** A 29 year-old heroin abuser man who developed nephrotic syndrome was admitted to our clinic. History of gross hematuria, recent infection, gastrointestinal discomfort, arthralgia, using systemic medication, and Henoch-Schonlein purpura were absent. He had been using heroin non-parenterally three times a week for two years. Laboratory findings on admission were as follows: serum albumin: 2.8 g/dl and proteinuria 3.9 g/d. Renal biopsy revealed the findings of minimal change disease with IgA deposition. Because of histopathological findings, the diagnosis of IgA nephropathy or minimal change nephrotic syndrome with IgA deposition was considered. The patient discontinued the use of heroin. An angiotensin-converting enzyme inhibitor, ramipril, was started, but was discontinued due to symptomatic hypotension three days later. Patient was treated with dietary recommendations. Proteinuria decreased gradually without immunosuppressive treatment. Consequently complete clinical and laboratory remission were observed after four months of the cessation of heroin. Proteinuria and serum albumin levels returned to normal levels.

**Conclusion:** This case showed that minimal change nephrotic syndrome with IgA deposition associated with heroin abuse had a benign clinical course.

## Serum heart-type fatty acid binding protein, pro-brain natriuretic peptid, and troponin-T levels and associated factors in asymptomatic hemodialysis patients

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**Background:** The early diagnosis and discovery of new early markers for CVD may improve survival in dialysis patients. In general population, heart-type fatty acid binding protein (H-FABP), probrain natriuretic peptid (proBNP) and troponin-T (Tn-T) are the novel biomarkers and predictors of ongoing myocardial injury and heart failure.

**Aim:** to investigate the serum levels of H-FABP, proBNP and Tn-T in HD patients and compare with healthy persons, and to assess the related factors.

**Patients and Method:** Sixty HD patients and 62 sex and age-matched healthy person were enrolled to study. Demographic features were obtained. H-FABP, proBNP and Tn-T levels, fasting blood glucose, lipid profile, uric acid, albumin, C-reactive protein, complete blood count, urinalysis were measured in all study persons. Echocardiographic investigation was performed in all HD patients.

**Results:** H-FABP, proBNP and Tn-T levels were higher in patients than those in healthy people ( $p=0.006$ ,  $p<0.001$ , and  $p<0.01$ , respectively). There were no relationship between left ventricular hypertrophy, ejection fraction, and H-FABP, proBNP and Tn-T levels. H-FABP levels were higher in patients with pulmonary hypertension and tricuspid valve insufficiency than the others ( $p=0.025$ ). There were inverse correlation between CRP ( $r=-0.41$ ,  $p<0.01$ ) and albumin ( $r=-0.29$ ,  $p<0.05$ ) levels and proBNP. ProBNP levels were higher in hypertensive patients than the others ( $p=0.038$ ).

**Conclusion:** In asymptomatic HD patients, H-FABP, proBNP and Tn-T levels were significantly higher than those in healthy people. Diagnostic utility remain uncertain in HD patients.