

Abstract Type : Poster

Abstract Submission No. : 1397

Experience for complications after kidney biopsies for seven years in a single center

Sehyun Jung¹, Hyejin Jeon¹, Seunghye Lee¹, Ha Nee Jang¹, Se-Ho Chang², Hyun-Jung Kim²

¹Department of Internal Medicine-Nephrology, Gyeongsang National University Hospital, Korea, Republic of

²Department of Internal Medicine-Nephrology, Gyeongsang National University Hospital, and Gyeongsang National University College of Medicine, Korea, Republic of

Objectives: Kidney biopsy is a valuable tool for diagnosing kidney disease. Because it supports important information to establish the treatment and predict the prognosis of kidney disease. Percutaneous kidney biopsy by using real-time ultrasonography or computed tomography has become a safe and effective method. However, the complications of kidney biopsy such as pain, bleeding, perirenal hematoma, arteriovenous fistula formation, and macroscopic hematuria still exist. Therefore, we investigated the occurrence and risk factors of complications after kidney biopsy for seven years in a single center.

Methods: A total of 711 patients who underwent percutaneous kidney biopsy with age more than 18 years old between 2013 and 2019 at Gyeongsang National University Hospital were included. We divided them into two groups according to complication or not. We retrospectively analyzed the laboratory findings, history of comorbidities, and social characteristics as the risk factors.

Results: The total occurrence rate of complications after kidney biopsy was 72.0% (n=512). The prevalence rate of obesity, smoking, hypertension, and diabetes mellitus were significantly lower in complication group than in the other group. The estimated glomerular filtration rate was significantly higher in the complication group than in the other group (55.5 ± 39.2 vs. 68.1 ± 41.6 , $p < 0.001$). The hematoma was the most common complication after kidney biopsy (n=471, 66.2%), followed by pain that requires medication (n=98, 13.8%), and macroscopic hematuria (n=25, 3.5%). There were six patients who performed embolization, of which three patients had the extravasation of the renal artery, the other two patients had the pseudoaneurysm and the other one had an arterio-venous fistula. Risk factors of complication were low in obesity (OR 0.53, 95% CI 0.35-0.81) and smoking (OR 0.55, 95% CI, 0.34-0.89).

Conclusions: The most common complication after kidney biopsy was hematoma at the biopsy site. The risk of its complications was low in patients with obesity and smoking.