

Physician - Vascular Access

[MEP-07]

External Iliac Vein Injury and Retroperitoneal Hematoma After Femoral Dialysis Catheter Insertion: A Case Report

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In patients with chronic kidney disease undergoing hemodialysis, dialysis catheters are frequently used to provide vascular access. However, this procedure can lead to significant complications. Retroperitoneal hematoma is a rare but potentially life-threatening complication of femoral vein catheterization. This case report discusses the surgical management of a retroperitoneal hematoma that developed after the insertion of a left femoral dialysis catheter. A 21-year-old female patient with a known history of chronic kidney disease secondary to bilateral hydronephrosis who was on hemodialysis for five years presented to the clinic. After the insertion of a left femoral dialysis catheter, the patient developed severe abdominal pain, nausea, and vomiting. Contrast-enhanced computed tomography revealed that the left femoral catheter had migrated into the retroperitoneal space, forming a large hematoma. Emergency surgical intervention was performed, including the removal of the catheter, evacuation of the retroperitoneal hematoma, and repair of the external iliac vein. Additionally, the gynecology department performed surgical intervention on an ovarian cyst, and the general surgery team controlled the bleeding. The patient had an uneventful follow-up. The literature indicates that appropriate surgical intervention positively influences prognosis in such cases. Awareness of possible complications during femoral vein catheterization can prevent delays in diagnosis and improve patient survival. As demonstrated in this case report, timely surgical intervention without removing the catheter is crucial in preventing additional complications in cases of retroperitoneal hematoma.

Keywords: Chronic, femoral vein catheterization, renal dialysis, renal insufficiency, retroperitoneal hematoma, vascular access.

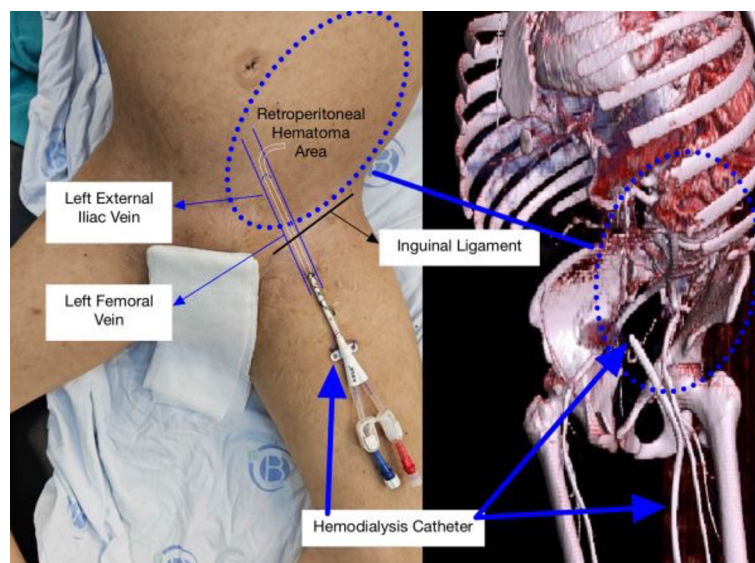


Figure 1. Localization and extent of the retroperitoneal hematoma following left femoral vein hemodialysis catheter insertion.

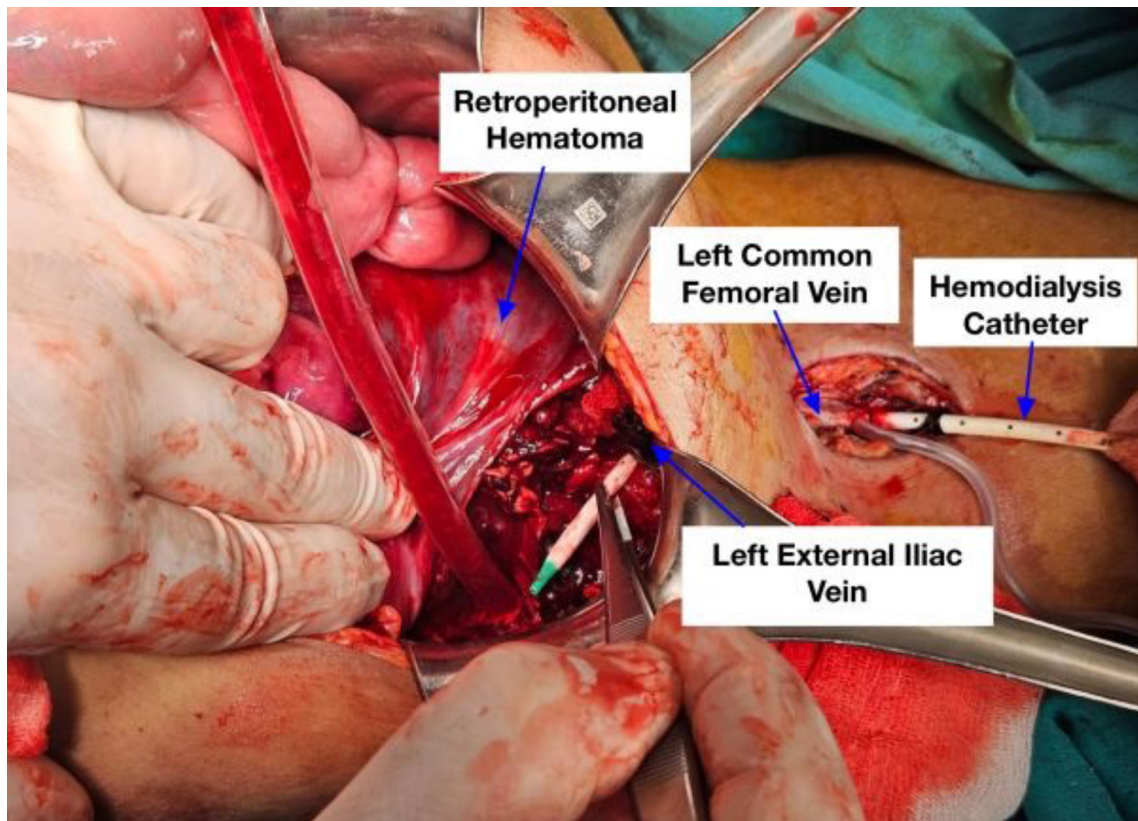


Figure 2. Intraoperative view of retroperitoneal hematoma with left common femoral vein and external iliac vein exposure.

References

1. Denli Yalvaç EŞ, Bademci MŞ, Kocaaslan C, Öztekin A, Aldağ M, Yılmaz Karadağ F, et al. Patency and complications of patients with tunneled dialysis catheters: A long-term follow-up study. *Turk J Vasc Surg* 2019;28:138-143.
2. Schmidli J, Widmer MK, Basile C, de Donato G, Gallieni M, Gibbons CP, et al. Editor's choice - vascular access: 2018 Clinical Practice Guidelines of the European Society for Vascular Surgery (ESVS). *Eur J Vasc Endovasc Surg* 2018;55:757-818. doi: 10.1016/j.ejvs.2018.02.001.
3. Annetta MG, Elli S, Marche B, Pinelli F, Pittiruti M. Femoral venous access: State of the art and future perspectives. *J Vasc Access* 2023;11297298231209253. doi: 10.1177/11297298231209253.
4. Walsh EC, Fitzsimons MG. Preventing mechanical complications associated with central venous catheter placement. *BJA Educ* 2023;23:229-37. doi: 10.1016/j.bjae.2023.02.002.
5. Brescia F, Pittiruti M, Ostroff M, Spencer TR, Dawson RB. The SIF protocol: A seven-step strategy to minimize complications potentially related to the insertion of femorally inserted central catheters. *J Vasc Access* 2023;24:527-34. doi: 10.1177/11297298211041442.
6. Sethi J, Gaur M, Rathil M, Kohli HS. Tunneled femoral vein catheterization for long-term hemodialysis - experience from a tertiary care center. *Indian J Nephrol* 2022;32:371-4. doi: 10.4103/ijn.ijn_224_21.