

Interest of Embolization in Post Arteriovenous Fistula: Renal Biopsy Puncture

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Introduction: Embolization is a minimal invasive surgical technique. The aim is to stop blood flow to a section of the body, which may effectively shrink a growth or block associate aneurism. The procedure is as an associate endovascular procedure by associate interventional specialist in associate interventional suite. Most embolisms happen to those who have risk factors for clot formation, like smoking and cardiopathy, different risk factors for different sorts of emboli embody high force per unit area, hardening of the arteries (buildup of fatty plaque within the blood vessels), high cholesterol, and overweight. The primary reason for most respiratory organ embolisms is deep vein occlusion (DVT). This can be a condition during which the veins of the legs develop clots. Natural agents within the blood usually dissolve tiny clots while not inflicting any effects of blockage. Some clots are huge to dissolve and sufficiently large to damage major blood vessels within the lungs or within the brain. Symptoms of embolism seem suddenly and include: shortness of breath, speedy respiratory, or wheezy, bloody bodily fluid, cough, lightheadedness, dizziness, fainting, sharp hurting or back pain. Factors that slow blood flow within the legs might promote activity. People will develop a DVT or respiratory organ emboli when sitting still on long flights or when immobilization of the leg during a solid, or when prolonged bed rest while not moving the legs. Different factors related to DVT or embolism embody cancer, previous surgery, a broken leg or hip, and genetic conditions moving the blood cells that increase the prospect of blood formation. An blood vessel fistula is an abnormal association or passageway between associate artery and a vein. Generally non-heritable, surgically created for dialysis treatments, or because of organic process, like trauma or erosion of associate blood vessel aneurism

Various causes include Congenital (developmental defect), rupture of blood vessel aneurism into associate adjacent vein, Penetrating injuries, Inflammatory gangrene of adjacent vessels. Intentionally created (for example, Cimino fistula as tube-shaped structure access for hemodialysis). Blood should be aspirated from the body of the patient, and since arteries don't seem to be straight forward to succeed in comparsion to the veins, blood is also aspirated from veins. The matter is that the walls of the veins are skinny compared to those of the arteries. The AV fistula is that the resolution for this downside as a result of, when 4-6 weeks, the walls of the veins become thicker because of the high blood pressure. Thus, this vein will currently tolerate needles throughout dialysis sessions. A nephritic diagnostic test is a procedure in which kidney tissue is extracted for laboratory analysis. The word "renal" describes

the kidneys, therefore a nephritic diagnostic test is commonly referred as a renal test/biopsy. Kidney diagnostic test also refers as monitoring the effectiveness of kidney/renal treatments and complications following a urinary organ transplant. Various types of renal/kidney biopsy include :

- Percutaneous diagnostic test (renal needle biopsy) : This is often the common/foremost method of nephritic diagnostic test. In this procedure, skinny diagnostic test needle is inseted through the skin to get rid of kidney tissue. The associate ultrasound or CT scan will direct the needle to a selected space of the urinary organ.
- Open diagnostic test (surgical biopsy) : In this procedure, a cut is made within the skin close to the kidneys. this enables the kidneys examination and verify the realm from that the tissue samples ought to be take

Case: The renal biopsy puncture (PBR) is an essential invasive procedure for diagnostic, prognostic and therapeutic purposes. Recent studies estimate that post-PBR life complications are less than 0.1%, however, more than 90% of major complications occur within 24 hours of the invasive procedure that constitutes PBR. The incidence of bleeding complications is estimated to 13%, of which 7% will require a therapeutic hemostasis intervention (radiological, surgical). Among these complications, arteriovenous fistula is reported 10.8% in series with systematic screening by post-biopsy Doppler ultrasound.

Materials/Method: Our work reports a clinical case having presented a post-PBR arteriovenous fistula controlled by arterial embolization.

Observation: This is a 51-year-old patient with no particular medical history, admitted in the context of acute renal failure at 88 mg/l of plasma creatinine; with proteinuria at 0.78 g/24 h, microscopic hematuria, high blood pressure figures. PBR was indicated, after PBR the patient presented gross hematuria. The clinical examination was poor, the blood pressure figures remained within the norms. The NFS notes the loss of 1 g/dL of Hb and a normal platelet count. The hemostasis assessment was correct and the renal ultrasound did not show any perirenal hematoma. However, the post-PBR renal Doppler ultrasound coupled with the CT scan showed an arteriovenous fistula in the lower left lobar level. The course of action was a gesture of selective arterial embolization with the placement of 3 coils followed by bed rest and clinical, biological and radiological monitoring. The evolution was favorable (disappearance of gross hematuria, and stabilization of the Hemoglobin level).

Discussion: Arteriovenous fistulas secondary to PBR are rare but potentially serious. The diagnosis is clinico-radiological. The treatment is based on selective arterial embolization which stops the bleeding and preserves the nephronic capital. Neglected arteriovenous fistula can cause secondary hypertension and cardiovascular complications.

Conclusion: The P.B.R. ultrasound guided is a practically harmless, precise and highly reliable organ exploration method

with a success rate of 92% and a low percentage of complications of 2.6%.

It can sometimes be coupled with vital complications with a mortality rate between 0.06% and 0.16% according to the authors. Hence the interest of close monitoring, after performing the PBR, vital parameters and the appearance of urine is necessary for 24 hours