Aim of the study: Here we aimed to study the clinical presentation and surgical management of the complications associated with surgically created AVF in patients on maintenance hemodialysis.

Methods: This retrospective study was conducted on patients who underwent surgical intervention for various complications related to AVF created at our centre or referred to our centre for management of complications.

Results: A total of 2260 AVF were created and a total of 176 complications were encountered during period of 2001–2016 requiring surgical intervention. Seventy two patients had primary fistula made at other centre. Preoperatively complications were evaluated with USG Doppler or angiography (CT/MR) in selected cases. Most Common complication was pseudoanerysm (PA) (n = 120–68.2%), followed by Venous hypertension (16%), steal phenomenon (11%), Pulmonary hypertension (3.2%) and Cardiac failure (1.6%). PA was most commonly encountered at anastomosis site followed by vein puncture site and accidental arterial puncture site. Fistula could be salvaged only in 13.8%. Radial artery was ligated in radial AVF for any of the above complications. Brachiocephalic (BCF) or Brachiobasilic fistula (BBF) complications required repair of artery when PA involved anastomotic site. Venous hypertension involving BCF were managed with ligation of outflow vein or angiographic balloon dilatation of proximal venous stenotic segment. Success rate of Angiographic management were 50% in our cases with 85% of them had recurrence of symptoms with median follow up of 9.5 months.

Conclusions: Pseudoaneurysm is the commonest complication of AVF. MR angiography helps in preoperative vascular mapping and surgical planning. Aggressive management of expanding pseudoaneurysm must be done to minimize the risk of life threatening bleeding.

Conflicts of interest

The authors have none to declare.

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Role of C1Q SAB assay in prediction of kidney transplantation outcome in highly sensitized patients

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Background: A large number of patients are now coming for second transplant for the wide spread availability of kidney transplant. Patients after long years of dialysis are also coming for transplant. Such prospective recipients often become cross match (CDC with AHG augmentation) positive with their recipients. We perform SAB donor specific antibody testing to find who have truly anti HLA antibody. We have also preformed C1q binding SAB assay to find out which of the SAB antibodies complement fixing.

Aim of the study: We want to present our data with CDC and C1q SAB Positive with or without DSA. Only in selected cases; transplantation performed with desensitization protocol with positive SAB cross match.

Methods: Complement dependent cytotoxicity (CDC) crossmatch had been performed with anti-human globulin (AHG) augmentation and DTT treatment. Single Antigen assay with C1q had been performed using Labscreen assay kit from One Lamda; USA.

Results: Among 15 highly sensitized patients after confirming with C1q SAB, 6 patients were detected with complement fixing Donor specific anti-HLA antibodies against either Class I or Class II. 9 patients among 15 were detected with no Donor specific but positive complement fixing anti-HLA antibodies. Among the 6 patients with positive DSA 4 patients exhibit Class I positive and 2 were Class II positive. Among the 9 patients with no DSA 1 patient was Class I positive and 8 patients were Class II positive. Patients with positive complement fixing anti-HLA Class I and Class II antibodies underwent desensitization and allograft loss occurred ¼ patients (25%) of the Class I C1q positive group. Patients with negative complement fixing anti-HLA antibodies did not require any desensitization and appeared with stable graft function without any rejection symptom.

Conclusions: Successful kidney transplant can be possible even in highly sensitized patients after prescreening with C1q SAB assay and desensitization protocol. C1q positive Class I antibodies are highly associated with AMR and should be considered as high risk for transplant rejection.

Conflicts of interest

The authors have none to declare.

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Operating room challenges for the scrub nurse during renal transplantation

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Background: Renal Transplantation is a complex procedure involving two major operations: Donor nephrectomy and recipient surgery. There are challenges for the scrub-nurse including maintenance of asepsis; preparation of bench; provision of special instruments and handling of fine needles and sutures during special situations like those involving multiple vessels. Experience in handling these situations is required to avoid any mishaps.

Aim of the study: To analyze the challenges faced by the operating room nurse during renal transplantation at a tertiary care academic hospital.

Methods: Records of 150 live related renal transplants were analyzed for special situations like multiple vessels requiring multiple anastomosis and need for reperfusion during recipient operation.

Results: Of the 150 cases, multiple arteries were found in 18 cases. There were two arteries in 16 cases and three arteries in 2 cases. An average of twenty 6-0 and 7-0 sutures were required in the recipient procedure in these cases. In two cases, the needle got misplaced and it took substantial time to find them. The needle was found in a sponge in one case and on the floor in another. In 4 cases the kidney had to be taken off after the anastomosis and declamping of vessels as there was a doubt about the perfusion. Reperfusion on bench and reanastomosis was required posing fresh challenge in a panic situation.

Conclusions: The challenges faced by the scrub nurse during renal transplantation do not receive attention. Assistance by nursing staff experienced in handling these situations helps a great deal in achieving optimal results and puts surgeons at ease during such stressful situations.