

a statistically significant difference was found in the absolute value of angulation of both renal arteries on postoperative compared with first preoperative CTA (RRA, 17.2 degrees [7.2-25.3 degrees; $P < .001$]; LRA, 5 degrees [2.1-12.6 degrees; $P = .019$]), with no significant change thereafter (Table). In addition, significant anterior change on the clock position of the RRA of 15 minutes (0-30 minutes; $P = 0.002$) was found, without further changes. However, neither changes on the clock position in the LRA (7 minutes [0-26 minutes]; $P = .11$) nor changes in the distance between both renal arteries and the SMA were found. Regarding the SMA, a significant upward change was found in the trunk angulation of 7.9 degrees (2-12 degrees; $P = .001$) in comparing the preoperative and the first postoperative CTA images (Table). No changes regarding clock position and distance to the celiac trunk were recorded. A stent fracture was recorded at 47-month follow-up in a case with 8-degree upward modifications in the first postoperative CTA image.

Conclusions: Target vessels undergo morphologic changes after FEVAR during the early postoperative period. However, longer follow-up is required to evaluate their impact on stent patency.

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AAA 11.



Outcomes After Aortic Aneurysm Repair in Patients With History of Cancer With a Nationwide Data Set Analysis

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Objective: Synchronous cancer in patients with abdominal aortic aneurysm (AAA) increases their morbidity and mortality after AAA repair. However, little is known about the history of cancer in AAA patients and its impact on mortality after AAA repair. We analyzed the incidence and type of cancer history in patients who underwent AAA repair and difference in short- and long-term mortality.

Methods: Patients with intact AAA who were treated with endovascular aneurysm repair (EVAR) or open surgical repair (OSR) were selected from the Health Insurance and Review Assessment data in South Korea between 2007 and 2016. Primary end points included the 30-day and 90-day mortality and long-term mortality after AAA repair, determined by Kaplan-Meier analysis. The Cox proportional hazards models were constructed to evaluate independent predictors of mortality.

Results: A total of 11,785 patients were included, of whom 1999 patients (17.0%) were diagnosed with cancer. The common cancers included stomach (21.5%), colorectal (19.1%), prostate (18.4%), and lung (11.5%). History of cancer generally had no effect on short-term mortality after AAA repair at 30 and 90 days. Further analysis also showed no difference in short-term mortality in patients with intra-abdominal and digestive cancers after both EVAR and OSR. However, 30- and 90-day mortality rates of patients with a history of lung cancer were more than twice those of patients without lung cancer (3.07% vs 1.06% [$P = .0038$], 6.14% vs 2.69% [$P = .0016$]). Furthermore, the mortality rate at the end of the study period was significantly higher in AAA patients with a history of cancer than in those without a history of cancer (21.21% vs 17.08%; $P < .0001$; hazard ratio, 1.31; 95% confidence interval, 1.17-1.46).

Conclusions: The history of cancer in AAA patients increases long-term mortality but does not affect short-term mortality after both OSR and EVAR. Well-planned OSR and EVAR can be safely performed in patients with intact AAA and history of intra-abdominal and digestive cancers. However, AAA repair could increase both short- and long-term mortality in patients with lung cancer history, and those cases should be more carefully selected.

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AAA 12.



Juxtarenal Aortoiliac Occlusive Disease—Contemporary Results of Surgical Management and Outcome in a Tertiary Care Center in North India

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Objective: Peripheral artery disease involving the abdominal aorta and iliac arteries due to atherosclerosis is one of the most common therapeutic challenges faced by vascular surgeons. Although there is a paradigm shift in the management of aortoiliac occlusive disease, most patients with extensive aortoiliac disease with juxtarenal aortic occlusion are being referred to vascular surgeons for aortobifemoral bypass as endovascular treatment is complex and long-term data are not available about its durability. During the last 3 years, 15 patients have been managed surgically at our institute with promising results.

Methods: All patients were planned for conventional aortobifemoral bypass surgery. The surgical technique included control of bilateral renal arteries and suprarenal aortic clamp placement, infrarenal aortotomy and thrombectomy, thorough aortic flushing, and shifting of the clamp to the infrarenal aorta, followed by standard bypass grafting. Aortic clamp time and renal ischemia time were recorded.

Results: Fifteen patients (mean age, 54 years) had tissue loss (minor, eight; major, four); claudication pain was the most common symptom. Smoking (86%), diabetes (36%), hypertension (18%), and coronary artery disease (8%) were the most important risk factors. There were no patients with postoperative renal dysfunction or any need for renal replacement therapy. At mean follow-up of 14 months, all the patients were doing



Fig 1. Computed tomography angiogram volume rendered technology showing juxtarenal aortoiliac occlusion with re-formation of distal external iliac and femoral arteries with multiple collaterals.