II. Abstract

Title: **Results Following Stent-Graft Coverage of the Hypogastric Artery in the Management of Aortoiliac Aneurysms in Endovascular Aneurysm Repair**

Aims

The aim of the series of publications is: 1) to assess the outcomes of stent-graft coverage of the HA in the management of aortoiliac aneurysms with EVAR. 2) to determine the durability of an extra-anatomical procedure in the form of a femorofemoral crossover bypass in patients with AAA who had a unilateral graft limb occlusion following EVAR.

Materials and Methods

In the original article, a total of 93 patients with aortoiliac aneurysms were treated with EVAR, which required occlusion of one or both of the hypogastric arteries. The short communication article included 33 high-risk patients (2.05%), ASA class III and IV who required an extra-anatomical procedure in the form of a femorofemoral crossover bypass due to unilateral graft limb occlusion of the bifurcated stent-graft. Patients were re-examined at one month, six months, and one year, and then every year afterward, with clinical examination and a computed tomography scan.

Results

In the original article, a total of 93 patients with aortoiliac aneurysms required a unilateral or bilateral procedure. Six patients were excluded from our study because they did not appear at their follow-up appointments. The study included 87 patients (80 men; mean age 71.9 (7.9) years, range 54–88), of which 30 had a unilateral procedure and 57 had a bilateral procedure. In 8 procedures (5.55%, n = 7) there was a type II endoleak that resolved during follow-up and required no surgical intervention. In 10 procedures (6.94%, n = 10) there was a type IB endoleak, with 8 procedures requiring surgical re-intervention in the form of an extension. In 12 procedures (8.33%, n = 9), the hypogastric artery thrombosed.

The short communication article included 33 high-risk patients (2.05%), ASA class III & IV, (30 men; mean (SD) age 70 (7.7) years, range 48-90) who required an extra-anatomical

procedure. Seven patients had a failed femorofemoral crossover bypass which occluded during the follow-up period. Five patients had a thrombectomy, one patient had an above-theknee

amputation, and one patient was treated conservatively. However, four patients

experienced femorofemoral crossover bypass re-occlusion. Two patients required another reintervention

and the remaining two patients were treated conservatively.

The case report describes a lifesaving procedure where percutaneous intervention of the PAs

critically narrowed by a mediastinal lymphoma was performed. To the best of our knowledge,

this is the first case describing an intervention in a critically ill patient with PA stenosis

without any AEs.

Conclusion

Coverage of the hypogastric artery by stent-graft has been proven to be a safe procedure, but

there is still a risk of type II endoleak. The femorofemoral crossover bypass as an extraanatomical

procedure following unilateral graft limb occlusion should be considered for highrisk

patients who are not a candidate for major surgery.