

## INTERNSHIP REPORT

Period: May 1st to May 31st, 2023

Location: Department of Vascular Surgery, San Raffaele Hospital, Milan, Italy

During the period of May 1st to May 31st, 2023, I had the opportunity to undertake an internship at the Department of Vascular Surgery at San Raffaele Hospital in Milan, Italy. The main objective of this internship was to enhance my surgical technique and deepen my knowledge in the field of aortic surgery, with a special focus on complex open aortic surgery. This hospital is a renowned center for complex aortic pathology in Italy, both in terms of surgical techniques (open and endovascular) and scientific recognition in the field.

During the internship, I actively participated in the morning ward rounds and thereafter in the surgical theater, which operates from 8:00 am to 8:00 pm every day, with two operating rooms, except on Wednesdays and Thursdays when one of the rooms only operates until 2:00 pm. There is a hybrid room equipped with the Siemens ARTIS pheno machine.

On average, there was approximately one laparotomy per day, mostly for aneurysmal disease, with a predominance of infra-renal abdominal aortic aneurysm corrected with aorto-aortic tubular interposition graft. Carotid pathology was also quite prevalent, both through open surgery (carotid endarterectomy by eversion under locoregional anesthesia) and endovascular approaches (carotid stenting via femoral or radial access). I would like to highlight some surgeries that I had the opportunity to observe for the first time: treatment of a just-hilar splenic artery aneurysm with splenectomy; open treatment of a just-hilar renal artery aneurysm through aneurysmectomy and end-to-end anastomosis; open treatment of a superior mesenteric artery aneurysm with interposition graft using a prosthetic conduit; and last but not least, and most relevant to one of my objectives for this internship, the treatment of a thoracoabdominal aneurysm in the context of post-dissection type B aneurysmal degeneration in 2015, through interposition graft with Hemashield prosthetic conduit (off-the-shelf) with a patch on the distal aorta at the T11-12 level for preservation of intercostal arteries. I also observed the treatment of other pathologies such as peripheral arterial disease, superficial venous disease, deep venous disease (including stenting, embolization, or mechanical thrombo-aspiration), construction of dialysis accesses, thoracic outlet syndrome, and aortic dissection.

In summary, this experience provided me with the opportunity to observe the treatment of a thoracoabdominal aneurysm through open surgery, a practice not performed at my training center, as well as a significant amount of open abdominal aortic surgery, observing not only different surgical techniques but also perioperative care, especially intraoperative procedures. Therefore, I believe that this internship definitely met my expectations, adding theoretical and practical value to my future clinical practice.

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