Many mechanical endovascular techniques for thrombus removal have been explored over the last two decades. One of the main difficulties is designing a device that can remove adequate volumes of thrombus while also maintaining small size, flexibility, and ease of use. Penumbra’s Indigo System was born for cerebral vessel. With the recent addition of CatD, the System acquires a more powerful, larger-bore aspiration catheter with greater trackability.

VITAE is a prospective multicenter observational registry, involving 15 centers. The study includes patient > 18 years old affected from IRC, requiring haemodialysis and affected from vascular access thrombosis from < 72 hours, treated with Penumbra Indigo CatD. Patient cohort includes either autologous vascular access or prosthetic vascular access.

At present, we have treated 50 patients with 90.5% technical success. 95% of patients underwent endovascular adjunctive during the procedure (PTA +/- DEB, Stenting, Fibrinolysis).

81% patients underwent effective emodialysis within 24 hours after the procedure, 19% underwent catheter emodialysis due to early recoil and subsequent early thrombosis or due to insufficient AV-access flow-rate.

We observed a reduction in inpatient treatment and in “door-to-dialysis” time compared to surgical thrombectomy.

Thromboaspiration with Indigo Cat D proved effective in Vascular Access Thrombectomy. VITAE registry is still ongoing enrolling patients and new centres. Follow-up prosecution is necessary in order to prove long term results.