

Percutaneous Closure Device Controlled Incraft Stentgraft Implantation Registry (PUCCINI)

Lukas van Dijk, MD, PhD, Haga Teaching Hospital, The Hague, The Netherlands
Thijs Engelen, MT, Haga Teaching Hospital, The Hague, The Netherlands
Romee Hoogervorst, MT, Haga Teaching Hospital, The Hague, The Netherlands
Koen DeLoose, MD, PhD, AZ St Blasius, Dendermonde, Belgium
Randolph van Eps, MD, PhD, Haga Teaching Hospital, The Hague, The Netherlands
Bob van Tongeren, MD, PhD, Deventer Hospital, Deventer, The Netherlands
Hugo Veger, MD, PhD, Haga Teaching Hospital, The Hague, The Netherlands
Lieven Maene, MD, PhD, OLV Aalst, Aalst, Belgium
Wouter Stomp, MD, PhD, Haga Teaching Hospital, The Hague, The Netherlands
Marald Wikkeling, MD, Nij Smellinghe, Drachten, The Netherlands
Camiel Klink, MD, Haga Teaching Hospital, The Hague, The Netherlands
Wouter van den Eynde, MD, PhD, Imelda, Bonheiden, Belgium
Jan Wever, MD, PhD, Haga Teaching Hospital, The Hague, The Netherlands
Hans van Overhagen, MD, PhD, Haga Teaching Hospital, The Hague, The Netherlands

Objective:

Percutaneous endovascular repair (PEVAR) of infra-renal abdominal aortic aneurysms (AAA) is increasingly being performed due to the development of low profile endografts and the use of percutaneous closure devices. The feasibility and safety of the use of the INCRAFT AAA Stent Graft System and the ProGlide vascular closure system was assessed.

Methods:

The PUCCINI registry prospectively enrolled patients undergoing elective repair of infrarenal AAA at 3 centres in the Netherlands and 3 centres in Belgium. Patients underwent PEVAR with endograft implantation followed by closure using the ProGlide closure device. Procedural success rates, complications and 30-day follow-up outcomes were collected.

Results:

A total of 93 patients, 87% male, were enrolled. The mean aneurysmal diameter was 53.9 ± 10.2 mm. Successful ProGlide placement was achieved in 97.2% in the right and 89.8% in the left groin. Successful closure was achieved in 92.4% of right and 90% in left groins. One patient required surgical access and two surgical closure. Average blood loss was 155.6 ± 175.5 ml. Blood transfusion was not required. Average length of hospital stay was 2.1 ± 1.3 days. Post-implantation endoleaks were present in 37 (40.2%) patients (type 1: 12, type 2: 25). At 30-days there was no aneurysmal growth and no deaths. Follow-up imaging showed endoleaks in 39 (41.9%) patients. (type 1:8, type 2:29, type 3:2)

Conclusion:

The results from the PUCCINI registry demonstrate that the use of a low profile endoprosthesis for treatment of infrarenal AAA with percutaneous closure has a high rate of technical success and low rates of periprocedural complication.