Permanent hemodialysis catheter is an alternative vascular access for patients in whom construction of AV fistula is not possible or is contraindicated. Hemodialysis port is an alternative to permanent catheters. It is associated with better quality of life and is best suited for young and active patients.

In our center, we have been implanting hemodialysis ports since March 2016. All implantations were done under ultrasound and fluoroscopy guidance in aseptic conditions. After implantation, we continuously monitored the position of the hemodialysis port chambers and tip of the catheter, implantation and puncture site and flow parameters during every hemodialysis. Venous and arterial pressures during hemodialysis were monitored continuously in relationship with flow volume. Special attention was paid to possible infections of the hemodialysis port.

Considering the short learning curve of nurses and physicians that are handling hemodialysis ports and some complications at the beginning, we can observe quite stable function of all ports in last two years with acceptable, frequency of complication rate.

Hemodialysis port can be a good solution for demented patients and younger patients without arteriovenous fistula, offering a better quality of life. By optimising the filling solution hemodialysis port with a combination of thrombolytics (rTPA) and anticoagulant (standard heparine) and after changing the dressing strategy of puncture site and skin over the hemodialysis port chambers the complication rate was significantly lowered.

The complication rate in last two years was comparable than observed in patients with central venous catheter and quality of life was significantly better compared to permanent central venous catheter.