Unclassical 4th Redo endovascular solution for central venous occlusion

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A 52 years old female, ESRD on regular HD

Since 2001 she had multiple AV fistulae and numerous central venous catheters on both sides, last was right brachio cephalic AVF on 2010.
On November 2013 developed oedema of the Rt. Arm and face due to occlusion of Rt. innominate vein.

On January 2014, treated by angioplasty and stenting of Right innominate vein.
Right innominate vein occlusion
Rt. innominate vein angioplasty & stenting
improved for one year then had recurrent symptoms due to occlusion of the stent.

On February 2015, second re-intervention with stenting inside, and longer than the old occluded stent,
Rt. innominate v. occluded stent
New long stent from Rt. innominate to the Rt cephalic vein, bypassing the Rt axillary vein
Yet patient improved for few months then occluded again with recurrent symptoms.
On September 2015, Third trial of angioplasty done by another team but failed,

So they decided to close brachio-cephalic AVF and do brachio Axillary AV graft, which was still patent
Improved for few months, then had recurrent symptoms again.

On May 2016, patient presented by recurrent symptoms of severe edema of the Rt. upper limb and Rt. side of face.
Angiography showed much more difficult situation,
- an occluded stent.
- starting from the Rt. cephalic vein
- to the mouth of SVC,

- functioning AV graft draining into the right axillary vein draining into the middle of the occluded stent.
On May 2016 a 4th endovascular trial was done,

Two accesses are planned;

from the artificial graft right arm
and Right femoral vein,
Occluded cephalic end of the stent
Angio from axillary vein
From inside the stent
Catheter reaching the side of the stent
occluded stent punctured though its struts by sharp wire
Catheter followed the sharp wire between the Struts of the stent
Body floss technique
using body floss technique, balloon could be passed
Breaking the wall of the occluded stent
Ballooning the occluded stent
Stenting the occluded stent
A new stent coming out from the side of the old stent
Good flow in the stent
Good flow in the stent
Patient’s symptoms improved, and for the last 8 months till now stent still patent with functioning AV graft using it for hemodialysis.
Thank you

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