My best and worst TAVR case of the year. The single most important lesson learned

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My worst TAVR case of the year

- 83 year-old woman with severe, symptomatic AS (NYHA class III x 6 months) and recent near-pulmonary edema
- 2VD, recent PCI of mid-LAD and major OM of dominant LCx
- Echo: LVEF=55%, AV grad=69/49 mmHg, PAP=50 mmHg
- DM, HTN, Dyslipidemia, Creat Clear=31ml/min, high frailty score
- Log EuroScore=19,51%
- Ao Annulus=18x28 mm (22), 68mm (perimeter),
- Iliac-Fem vessels min diam: L=6,1x6,2mm   R=5,6x6,4mm
- For Evolute R of 26 mm
Right arterial axis
My worst TAVR case of the year
ΌΧΙ ΓΙΑ ΙΑΤΡΙΚΗ ΧΡΗΣΗ

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Proglide

- Suture Trimmer
- Foot
- Link
- Foot (Deployed)
- Guide Wire Exit Port
- Sheath
- Lever
- Marker Lumen
- Proximal Guide
- Distal Port
- Marker Port
- QuickCut
- Body
Left arterial axis
R Radial artery
Evolute R 26 mm
Multiple Proglide devices
Proglide complications

- 24h and 30 day outcome of Perclose Proglide suture mediated vascular closure device: An Indian experience.
  - Vinayakumar D1, Kayakkal S2, Rajasekharan S3, Thottian JJ3, Sankaran P3, Bastian C1.

**Abstract**

**INTRODUCTION:**
Advantages of vascular closure device over manual compression include patient comfort, early mobilisation and discharge, avoidance of interruption of anticoagulation, avoidance of local compression and its sequelae and less time constraint on staff. No published Indian data exist regarding Perclose Proglide suture mediated vascular closure device (SMC).

**AIM:**
To study the 24h and 30 day outcome of Perclose Proglide SMC retrospectively.

**STUDY DESIGN:**
Retrospective observational study conducted in the Department of Cardiology, Government Medical College, Calicut, Kerala from June 2013 to June 2015.

**METHODOLOGY:**
All consecutive patients with Perclose Proglide SMC deployment done by a single operator for achieving access site haemostasis where 24h and 30 day post-procedure data were available were included. Major and minor complications, procedure success, device failure were predefined.

**RESULTS:**
323 patients were analysed. Procedure success rate was 99.7% (322/323). Transient oozing occurred in 44 patients (13.6%), minor and major complications occurred in 2% and 1.5% of patients respectively. Major complication included one case of retroperitoneal bleed, one access site infection, one pseudo aneurysm formation and two access site arterial stenosis. There was no death or complication requiring limb amputation. "Preclose" technique was used successfully in six patients. Primary device failure occurred in 12 cases which were tackled successfully with second Proglide in all except one.

**CONCLUSION:**
Perclose Proglide SMC is a safe and effective method to achieve haemostasis up to 22F with less complication rate.
Proglide complications

- **Totally Percutaneous Access Using Perclose Proglide for Endovascular Treatment of Aortic Diseases.**
- **Saadi EK1, Saadi M2, Saadi R3, Tagliari AP1, Mastella B4.**

**Author information**

**Abstract**

**OBJECTIVE::**
To evaluate our experience following the introduction of a percutaneous program for endovascular treatment of aortic diseases using Perclose Proglide® assessing efficacy, complications and identification of potential risk factors that could predict failure or major access site complications.

**METHODS::**
A retrospective cohort study during a two-year period was performed. All the patients submitted to totally percutaneous endovascular repair (PEVAR) of aortic diseases and transcatheter aortic valve implantation since we started the total percutaneous approach with the preclosure technique from November 2013 to December 2015 were included in the study. The primary endpoint was major ipsilateral access complication, defined according to PEVAR trial.

**RESULTS::**
In a cohort of 123 patients, immediate technical success was obtained in 121 (98.37%) patients, with only two (0.82%) cases in 242 vascular access sites that required intervention immediately after the procedure. Pairwise comparisons revealed increased major access complication among patients with >50% common femoral artery (CFA) calcification vs. none (P=0.004) and >50% CFA calcification vs. <50% CFA calcification (P=0.002). Small artery diameter (<6.5 mm) also increased major access complication compared to bigger diameters (> 6.5 mm) (P=0.027).

**CONCLUSION::**
The preclosure technique with two Perclose Proglide® for PEVAR is safe and effective. Complications occur more often in patients with unfavorable access site anatomy and the success rate can be improved with proper patient selection.
Proglide complications
Compared to the Prostar SMCD group, patients in the ProGlide SMCD group less frequently experienced VARC-2 major vascular complications (7.5% vs. 15.9%, p<0.001), closure device failure (0.8% vs. 2.3%, p=0.04), any bleeding (BARC: 36.8% vs. 53.9%, p<0.001; VARC-2: 30.8% vs. 34.9%, p=0.59). Furthermore, one-year mortality was significantly lower in the ProGlide SMCD group, 14.8% vs. 19.5% in the Prostar SMCD group, log-rank p=0.04. However, VARC-2 major vascular complications but not ProGlide use were identified as an independent predictor of one-year mortality (adjusted odds ratio 1.54, 95% CI: 1.01-2.34 and 1.01, 95% CI: 0.65-1.55, respectively).

Conclusions: In this analysis, the use of ProGlide SMCD was associated with a reduced risk of vascular and bleeding complications following TAVI compared to Prostar SMCD usage. However, major vascular complications but not ProGlide use did independently predict long-term mortality. Clinical Trial Registration: URL: http://www.clinicaltrials.gov. Unique identifier:
My best TAVR case of the year

- 88 year-old man with DOE class III x 6 months and recent hospital admission for CHF
- Diagnosed with severe, symptomatic AS
- 1VD, prox D2 and distal LAD
- Echo: LVEF=65%, AV grad=76/38 mmHg, AVA=0.9 and PAP=50-55 mmHg
- HTN, dislipedemia, Creat Clear=54 ml/min, PPM since 2008, AF for few months
- Log EuroScore=19%
- Ao Annulus=23x29 mm (26), 80mm (perimeter), Iliac-Fem vessels min diam: L=7.1x9mm  R=7.2x8.6mm
- For Evolute R of 29 mm
R access site
Evolute R 29 mm
Proglide use
F/U

• TAVI w/o complications, except hematuria from Folley catheter
• 16 hrs in CCU (necessary? Already PPM)
• 1 day in med ward
• D/C home
• This is the TAVI of the future and the future of the TAVI
THANK YOU