

Avoid lower limb: permanent catheters,
HeRO and thoracic grafts are better



Eric S Chemla

St George's vascular Institute

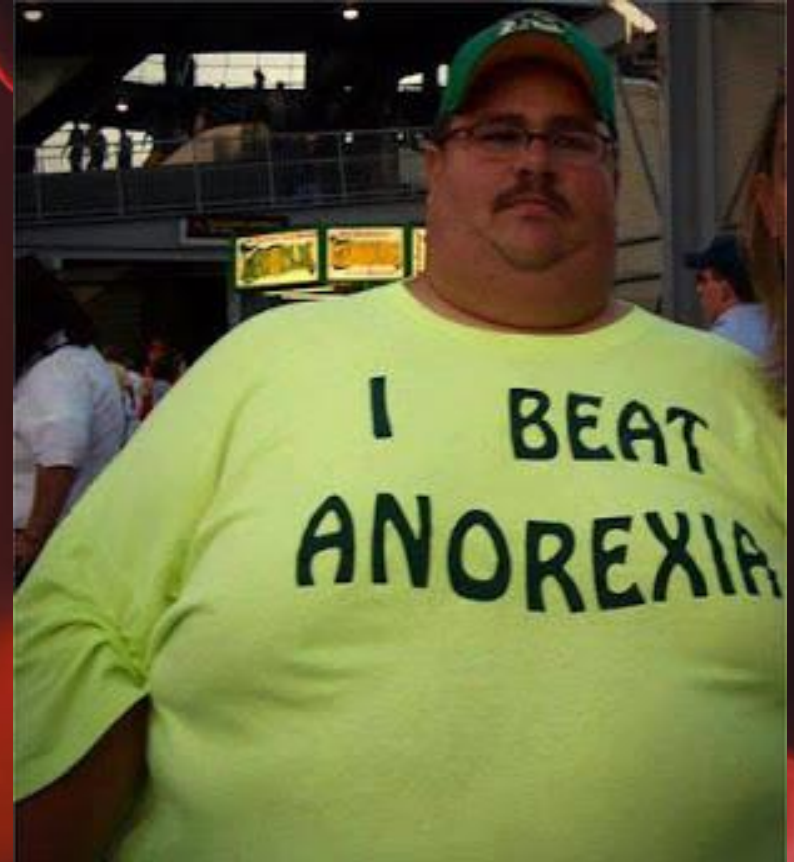


CX ST GEORGE'S
VASCULAR ACCESS COURSE

CX 13th International Symposium
CHARING
CROSS
CONTOVERSIES
CHALLENGES
CONSENSUS

Why is it so easy to win?

- Simply because it gives you more options before moving to the legs when desperate
- 366 M type 2 diabetic in the world in 2030: so more need for complex access and spare options
- Chest wall grafts have proven their efficacy (JVS 2008; 47: 138-43 and 48: 1251-4)
- HeRO compared to LEAVGs showed similar results: 'In our practice, we prefer the HeRO to LEAVG, especially in patients with peripheral arterial disease and in the obese population, because it preserves lower extremity access options' JVS 2013; 57: 776-83



ESRD aetiology is in my favour

- Total 2.5 M worldwide in 2009 (VAS) 70% in HD
- Diabetes is the main cause (Except for Africa and South America, 2nd cause in far East)
- 1.5 Billion with HBP in 2025
- Global population age world wide with greater expectation (25% in EU and 20% in USA over 65 in 2030)



Anyway , will you even be able to propose a lower limb access?

- Worldwide obesity has nearly doubled since 1980.
- In 2008, more than 1.4 billion adults, 20 and older, were overweight. Of these over 200 million men and nearly 300 million women were obese.
- 35% of adults aged 20 and over were overweight in 2008, and 11% were obese.
- 65% of the world's population live in countries where overweight and obesity kills more people than underweight.
- More than 40 million children under the age of five were overweight in 2011.

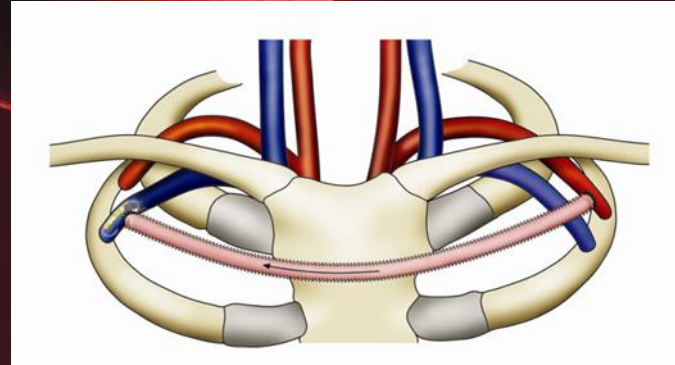


OBESITY

It can happen to anyone

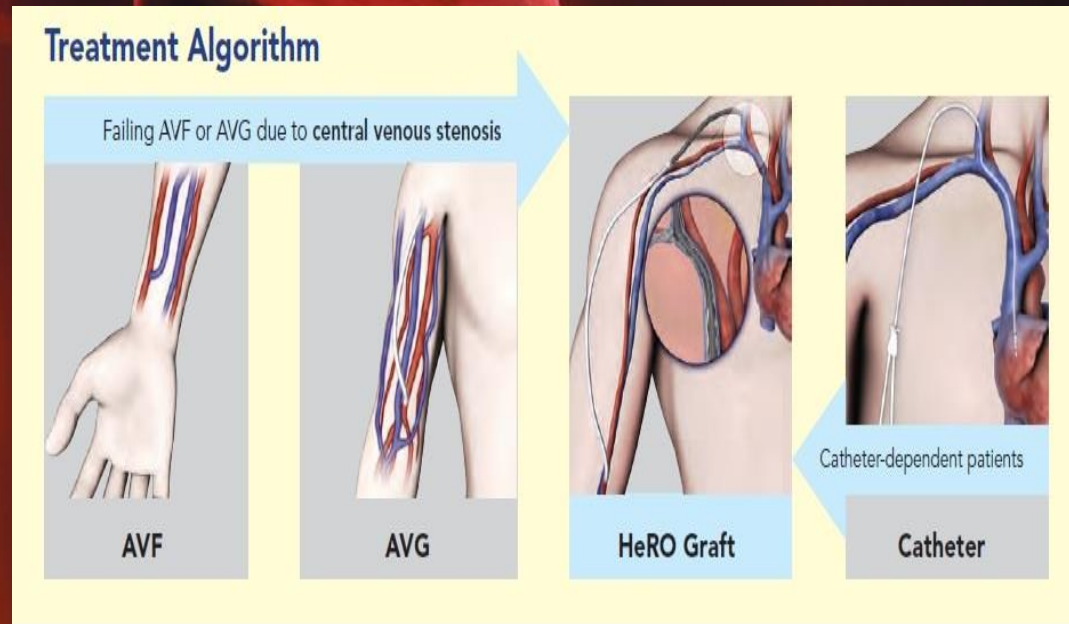
So here is the protocol:

- When all upper limb options are exhausted
- The SVC is open and even if one innominate is occluded
- Necklace straight or loop graft
- Axillary artery to axillary vein graft
- Remove CVC before surgery
- Use an early cannulation graft
- Result: Early cannulation necklaces between 2008-10: 16 cases, no CVC used before first cannulation; PP and SP at 6 weeks and 1 year: 92.9%-65.7% and 92.9%-83.5% (Semin Dial 2011;24: 456-9)
- Moreover very few infections: Out of a total of 37 grafts until 2014 only 2!



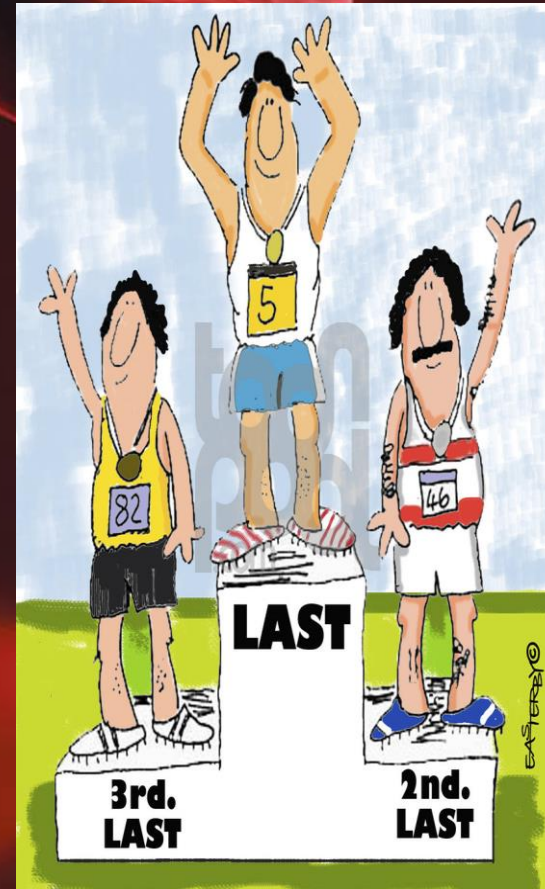
So here is the protocol:

- All upper extremity options are exhausted
- Bilateral innominate or SVC occlusion
- HeRO catheter is indicated before a LEAVG
- Hybrid between a PTFE graft and a CVC
- The evidence shows similar results for both technique (Ann Vasc Surg, JVS, EJVES largest series 164 pts)
- So why not spare the lower limb for when the HeRO fails and all upper extremity options are REALLY exhausted?



I could have won even beat my opponent to a pulp if...

- The title did not contain: ‘Central venous catheters...’
- All the available evidence says that AVFs have better outcome than grafts and CVCs
- Also than grafts have better outcome than CVCs
- Better dialysis adequacy, better inflammatory response, better survival rates
- No central venous diseases generated
- Better infection rates
- So I cannot argue for the use of CVCs



Conclusion

- The DOQI guidelines on access provision are dated
- We need to move away from the old scheme of AVFs at all cost and then no graft so CVCs are a viable option.
- Need to develop a new set of guidelines that includes:
 - New technologies like HeRO
 - Complex surgery
 - Maturation expectation
 - Patient expectations and attitude
- Upper limb options have expanded and LEAVGs are to be the last resort when all other including the rescues of the complex are exhausted

