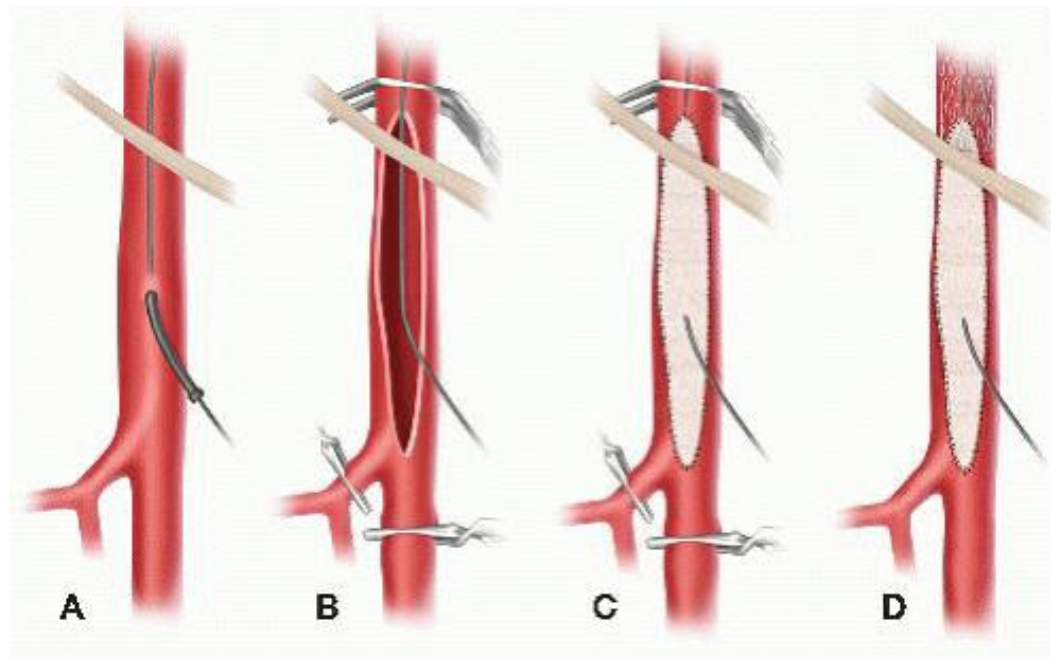


Endovascular treatment of common femoral artery disease should be the first line of treatment?  
**DISAGREE**

Chris Twine

Consultant vascular surgeon, North Bristol NHS Trust

# Common femoral artery open surgery



# Common femoral endarterectomy is clearly superior to endovascular treatment



**Usual practice** supports this argument

**Evidence supports surgery** – even the evidence ‘for’ endovascular treatment

You should support me if you feel **in any way** that endovascular should not be the first line treatment for common femoral artery disease

Recommending endovascular treatment of the CFA is like recommending snake oil



# UK practice: NVR 2020 report

## Lower limb angioplasty/stenting for peripheral arterial disease

Peripheral arterial disease (PAD) is a restriction of the blood flow in the lower limb arteries that can severely affect a patient's quality of life, and risk their limb.

Table 6.2: Characteristics of lower limb endovascular procedures by anatomical location

	Vessels treated	%	Angioplasty only	%	Stenosis/aneurysm <sup>1</sup>	%	Procedure success <sup>2</sup>	%
Aorta	284	0.7	117	41.2	-	-	-	-
Common iliac	6,703	17.4	2,757	41.1	4,856	72.5	6,351	94.9
External iliac	4,977	12.9	2,955	59.4	3,793	77.2	4,690	95.4
Superficial femoral	11,869	30.7	9,723	81.9	6,674	56.8	10,828	92.1
CFA, PFA	1,309	3.4	1,143	87.3	952	72.9	1,132	86.7
Popliteal	6,791	17.6	5,870	86.4	4,178	61.8	6,152	91.1
Tibial/pedal	5,599	14.5	5,442	97.2	2,965	53.0	4,582	81.9
Within graft	1,087	2.8	1,028	94.6	973	89.5	990	91.1

<sup>1</sup> The other indication for intervention was occlusion. 215 vessels and aorta missing lesion codes.

<sup>2</sup> The other outcomes were residual stenosis and failure. 229 vessels and aorta missing outcome codes.

## Endovascular Treatment of the Common Femoral Artery for Limb Ischemia

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1. ....eCFR is a durable treatment for patients with limb ischaemia associated with CFA disease

# Endovascular common femoral treatment is NOT durable



- Major case series:
- 115 patients, 46 (40%) claudicants, 1 asymptomatic!
- 2 year 80% amputation free survival
- 2 year amputation free survival for claudication is 90%
- Actual 2 year amputation free survival for critical ischaemia was 51%!
- For comparison in BASIL 1 it was above 60% for both endo and open groups

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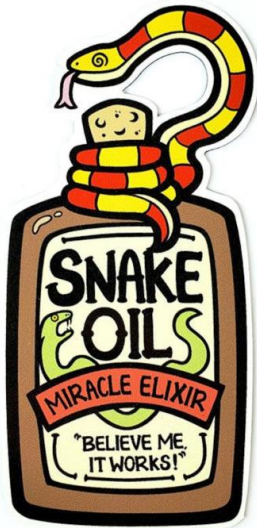


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1. ....eCFR is a durable treatment for patients with limb ischaemia associated with CFA disease
2. Few studies have reported outcomes after endovascular treatment for CFA disease



# Endovascular common femoral treatment is NOT new



- First descriptions in the literature 1980
- No real difference in reported outcomes from 1990 to 2019.....
- This is why the enthusiasts still think it is novel
- Still hasn't been adopted in routine practice

# Evidence: Supports surgery as first line treatment

- Largest analysis in literature is *proportional* meta-analysis covering 20 case series up to 2019
- 2914 patients. Open: 88% patency at 2 years, Endo: 84%.
- “Common femoral endarterectomy showed an advantage over endovascular for one year primary patency.”
- With modern anaesthetic techniques who is too unfit for a CFA endarterectomy but could lie flat for long enough to have a CFA angioplasty?
- **Surgery is the clear first line treatment**

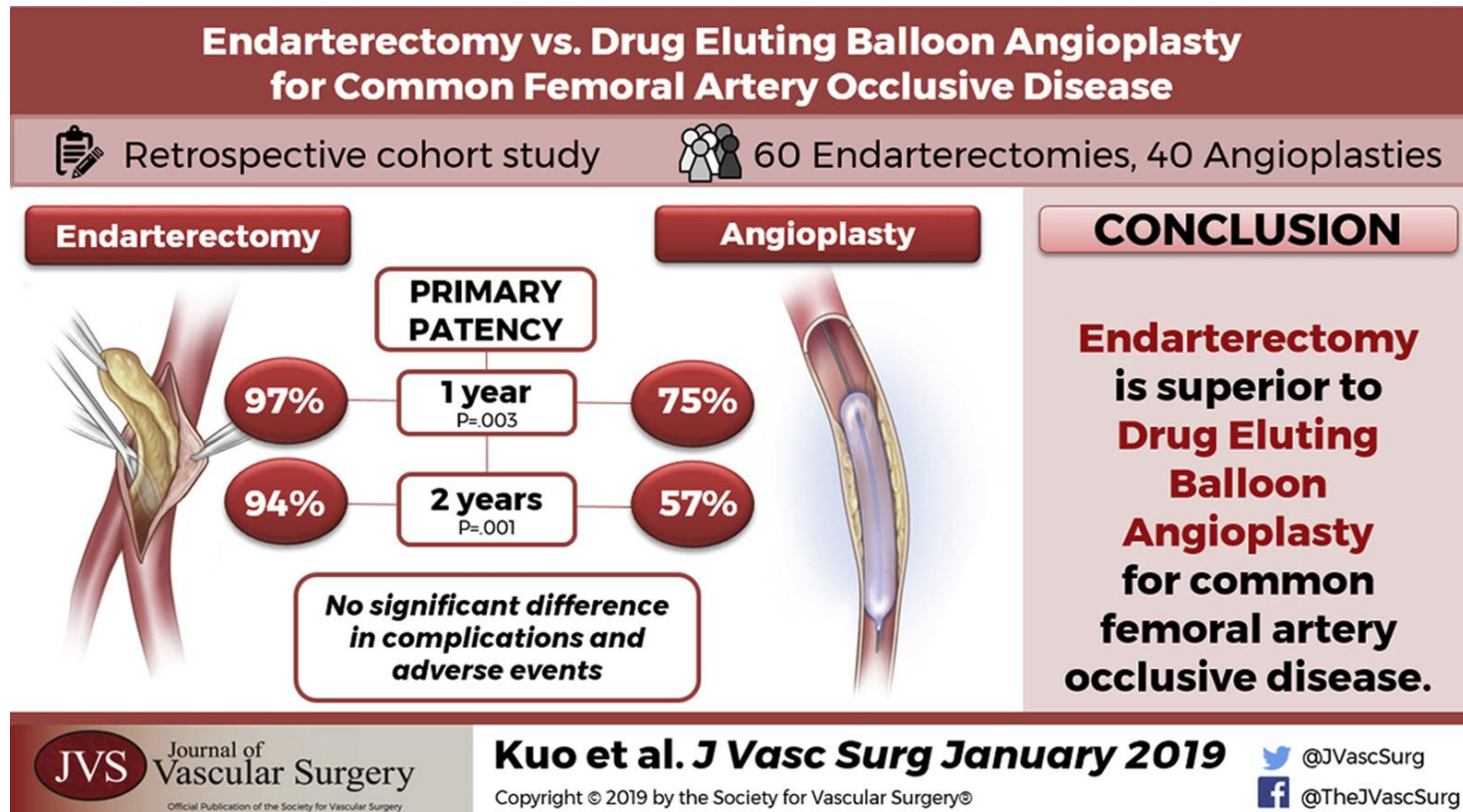
Changal KH, Syed MA, Dar T, Mangi MA, Sheikh MA. Systematic Review and Proportional Meta-Analysis of Endarterectomy and Endovascular Therapy with Routine or Selective Stenting for Common Femoral Artery Atherosclerotic Disease. *J Interv Cardiol.* 2019 Apr 14;2019:1593401. doi: 10.1155/2019/1593401. PMID: 31772513; PMCID: PMC6739799.

# Evidence: Common femoral endarterectomy is clearly superior to endovascular treatment

- Largest *comparative* meta-analysis covers 20 case series up to 2016
- 836 patients. Over 50% claudicants. 73% patency at 2 years, this is quoted as 90% - 95% for open CFA endarterectomy
- “Endovascular therapy *may* be a favored approach over endarterectomy for highly selected patients of poor surgical risk.”
- With modern anaesthetic techniques who is too unfit for a CFA endarterectomy but could lie flat for long enough to have a CFA angioplasty?
- **Surgery is the clear first line treatment**

Bath J, Avgerinos E. A pooled analysis of common femoral and profunda femoris endovascular interventions. *Vascular*. 2016 Aug;24(4):404-13. doi: 10.1177/1708538115604929. Epub 2015 Sep 7. PMID: 26346964.

# Evidence: What about drug eluting technology?



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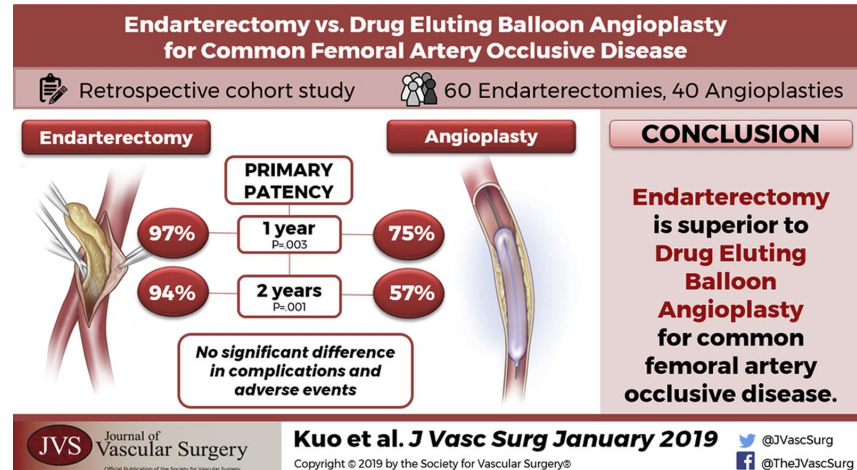


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1. ....eCFR is a durable treatment for patients with limb ischaemia associated with CFA disease
2. Few studies have reported outcomes after endovascular treatment for CFA disease..... novel treatment
3. eCFR.....may be associated with a reduction in major perioperative complications

# Endovascular common femoral treatment does not have fewer complications than open

- Comparative meta-analysis of this (low quality) literature has never shown fewer complications in the endo group especially when endo failure (10%) is included



# Endovascular treatment of common femoral artery disease should be the first line of treatment? VOTE FOR OPEN SURGERY

- Usual 'gold standard' practice is open common femoral endarterectomy
- Supported by national audit of our practice
- No evidence that endo CFA treatment is more durable, better at saving limbs or has lower complication rates than open repair
- Patients fit enough for a CFA angioplasty are fit enough for a CFA endarterectomy
- Usual practice, and the literature all show that **Endovascular treatment should not be first line treatment for the common femoral artery**
- **DISAGREE WITH THE MOTION THAT ENDO SHOULD BE FIRST LINE**