

EndoAVF : current status

Woon Heo MD, PhD

LifeLine Clinic

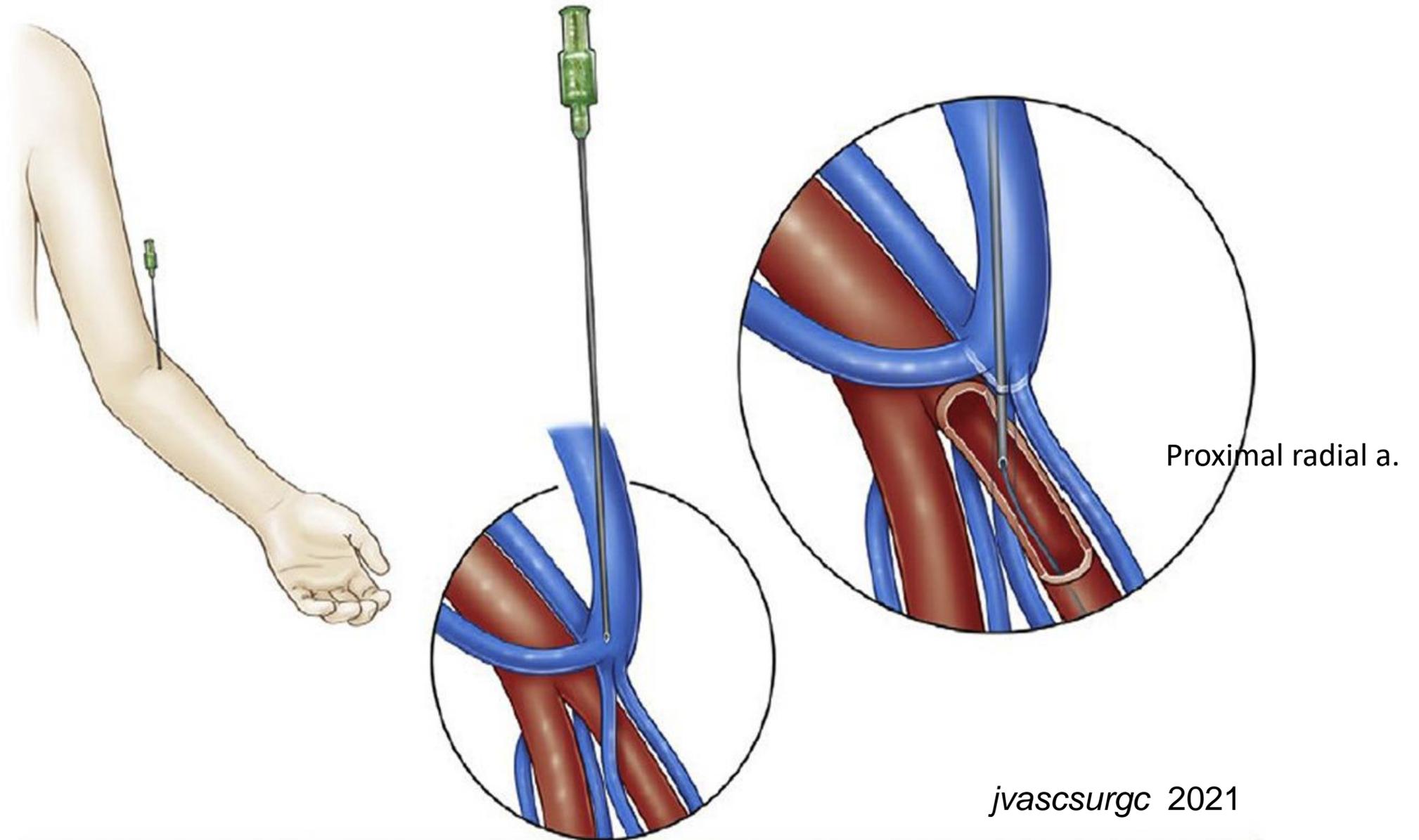
- Ellipsys Vascular Access System
- WavelinQ

- Contraindications -

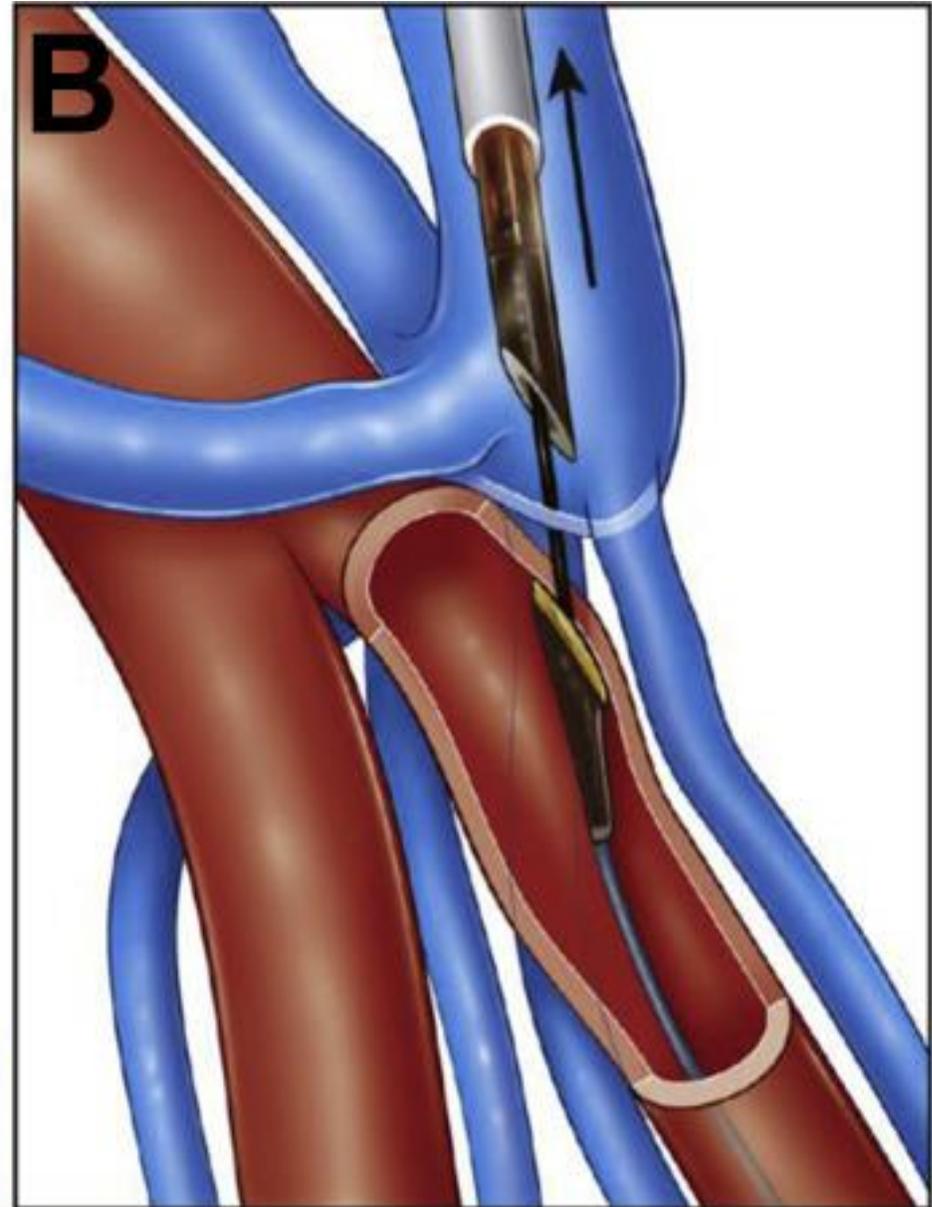
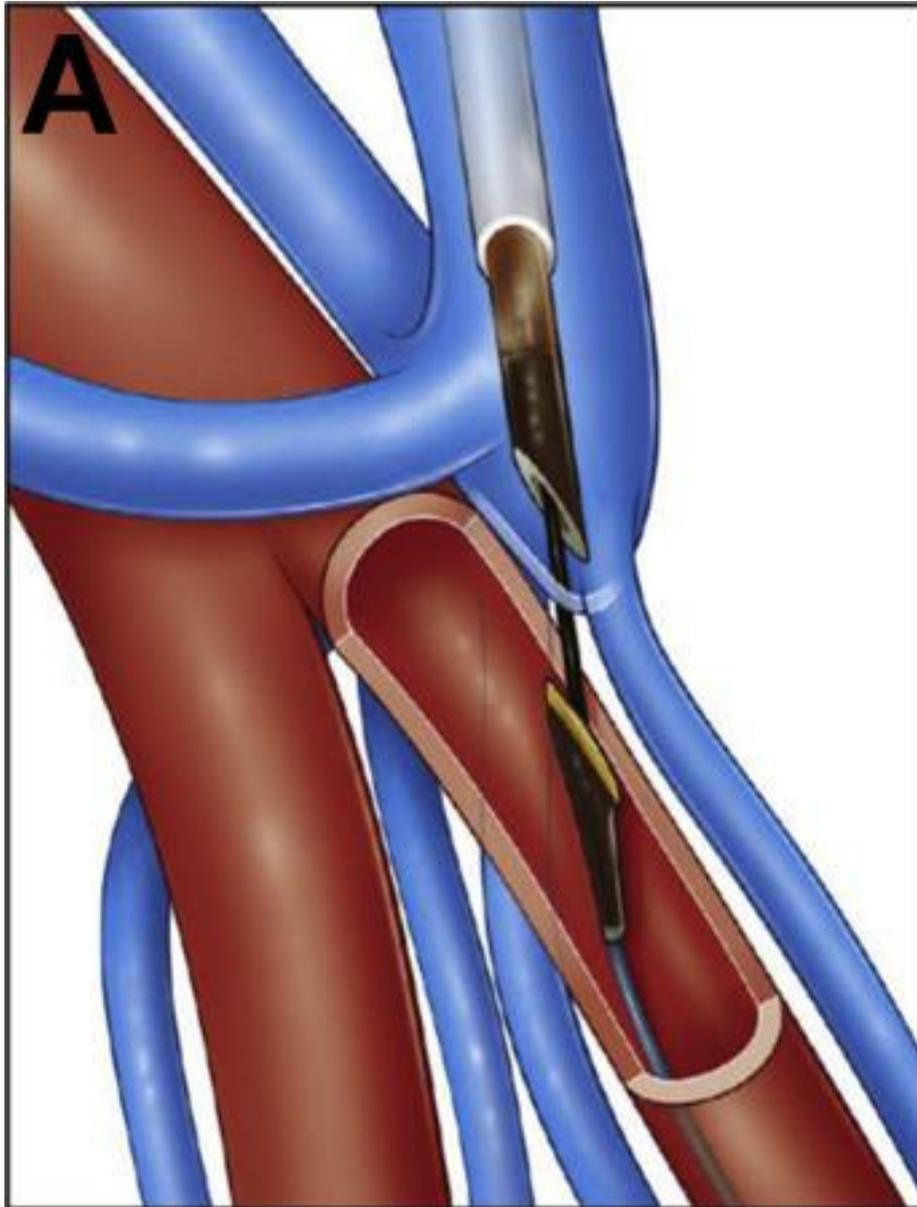
CVS – outflow occlusion

Distance between target artery and vein $> 1.5\text{mm}$

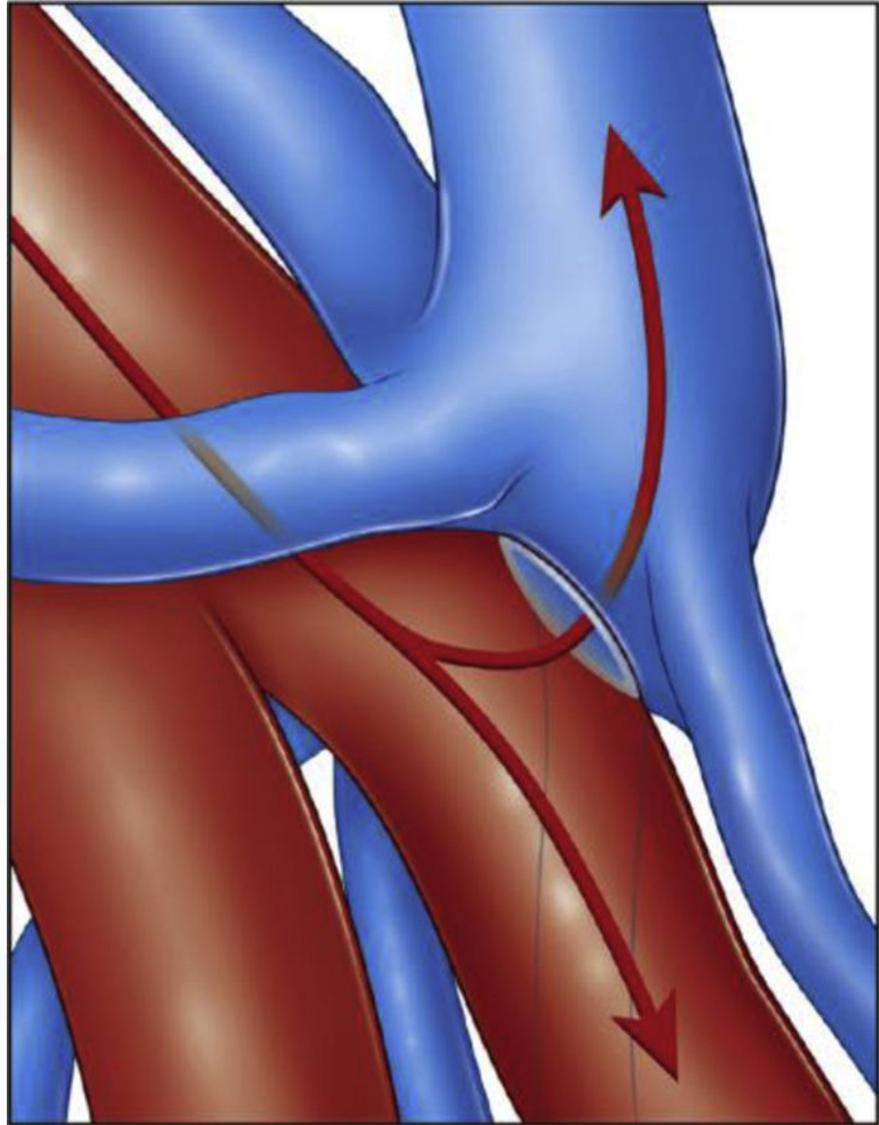
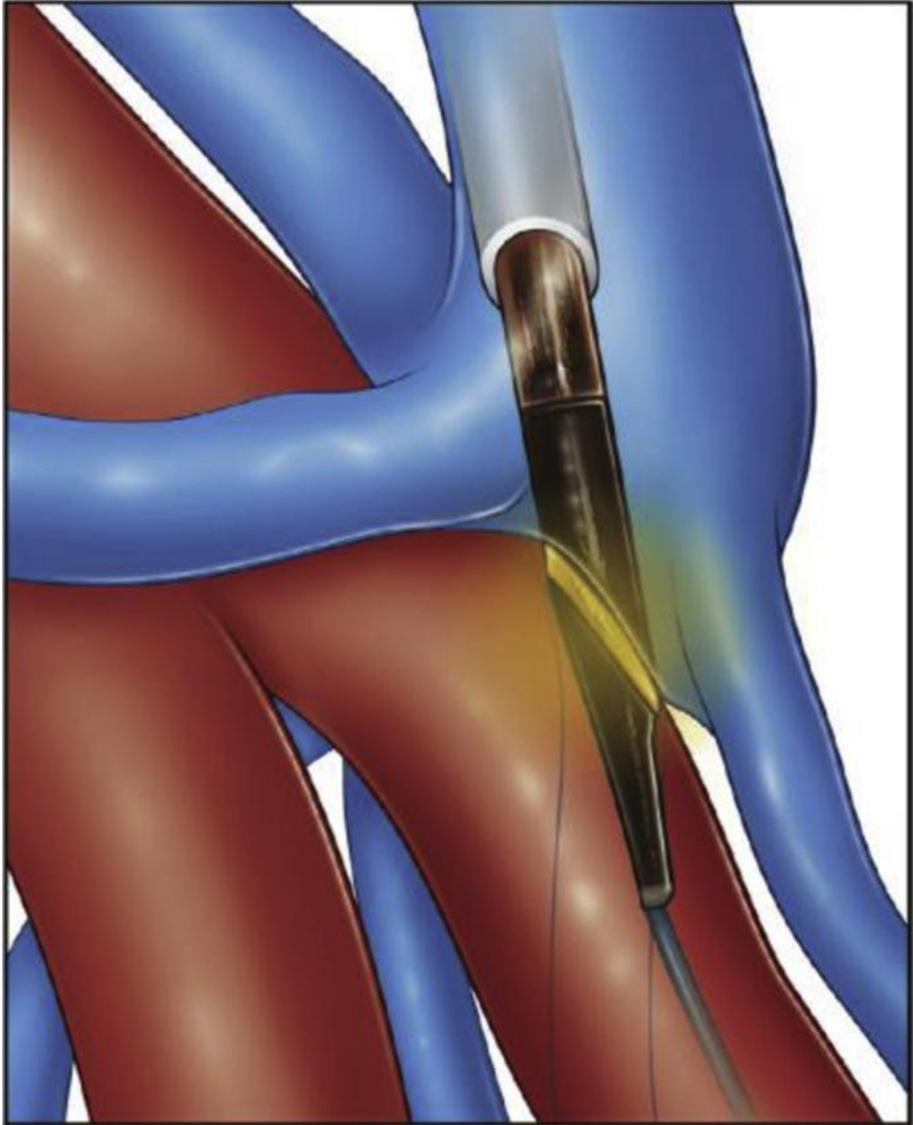
Target vessels $< 2\text{mm}$ in diameter



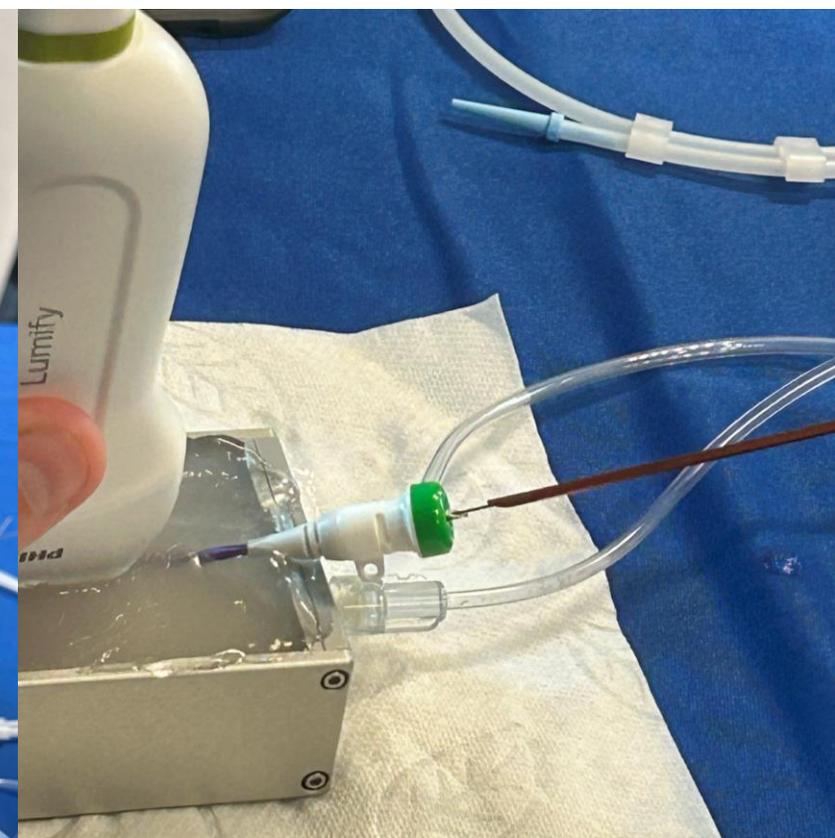
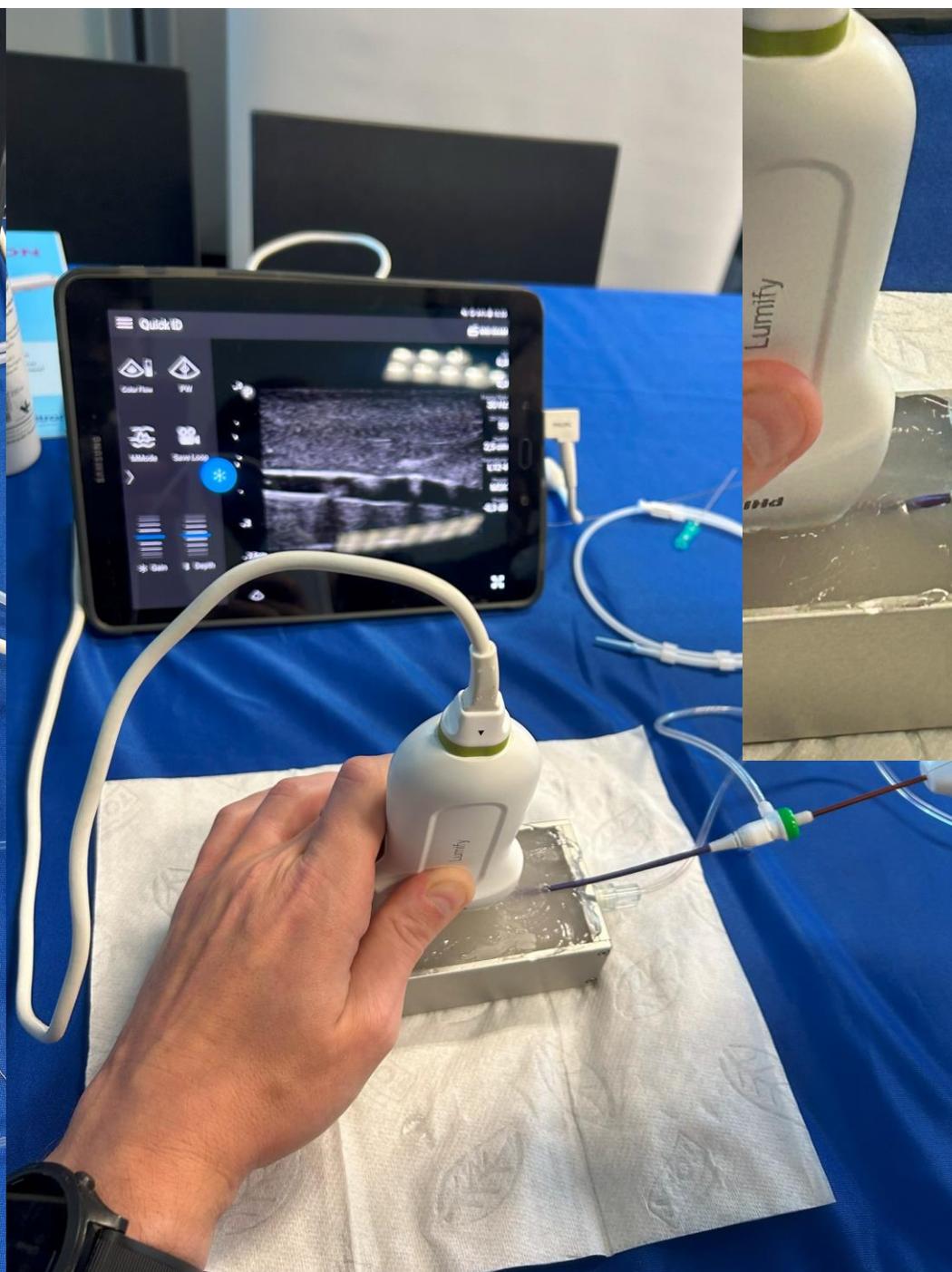
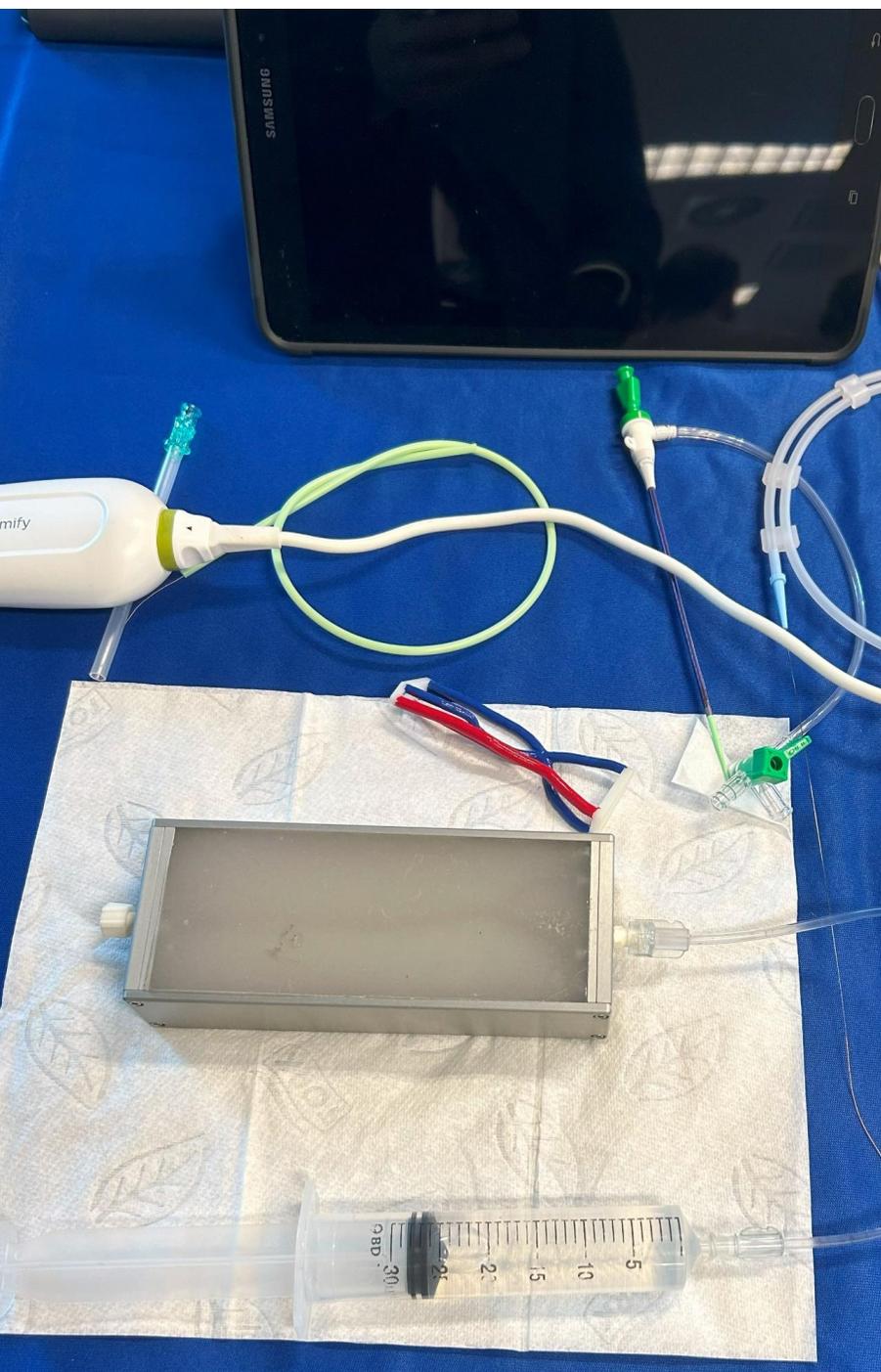
jvascsurgc 2021

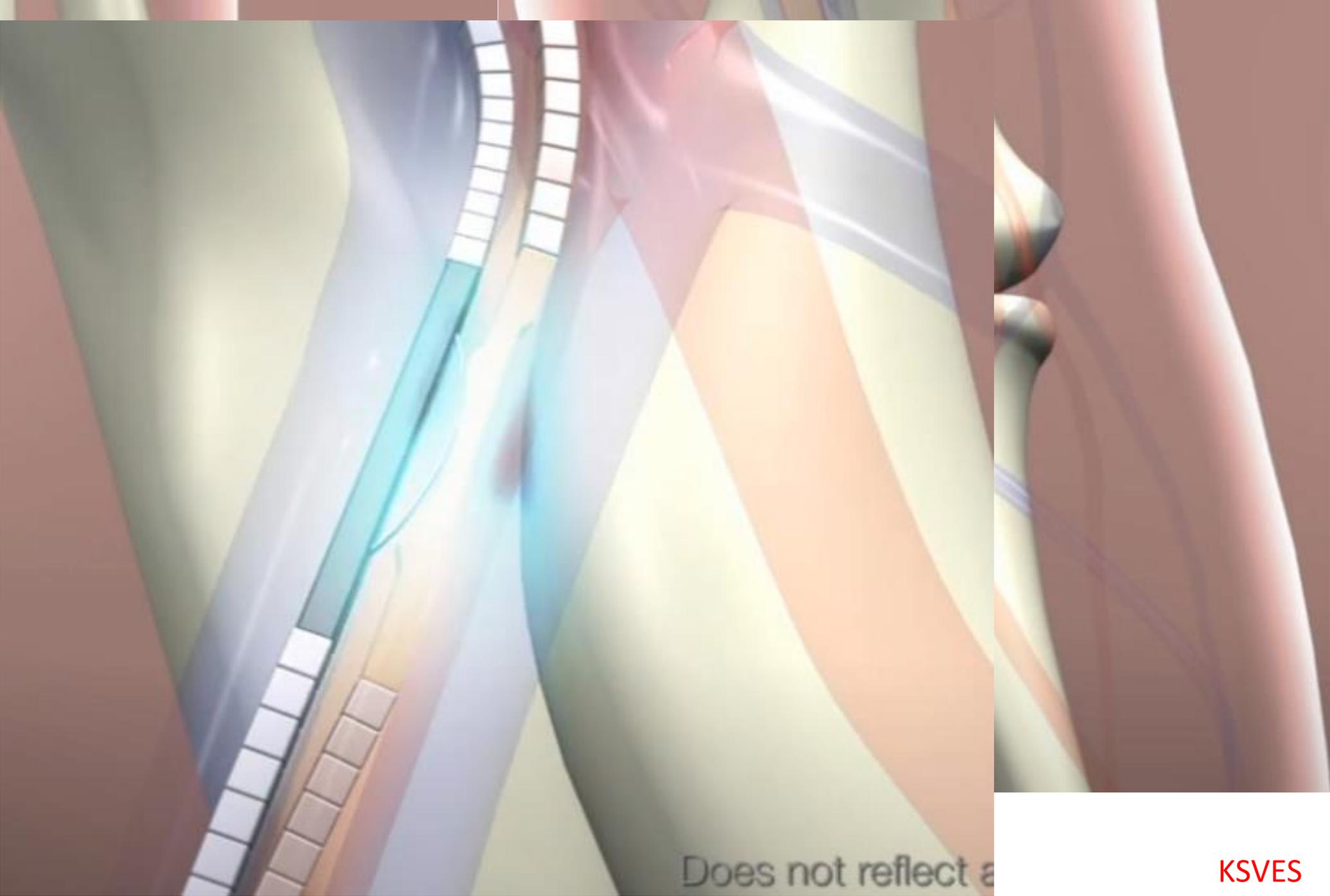


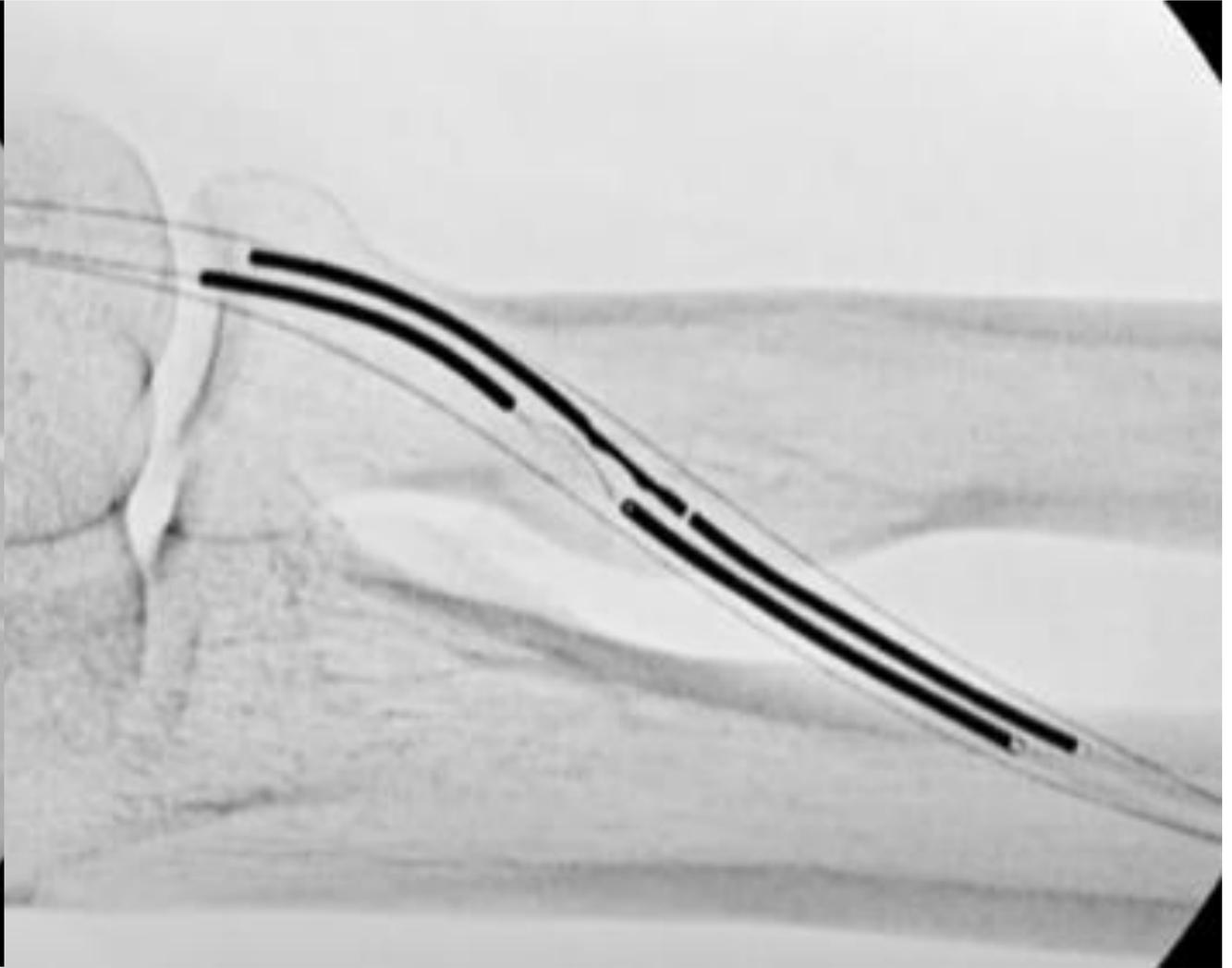
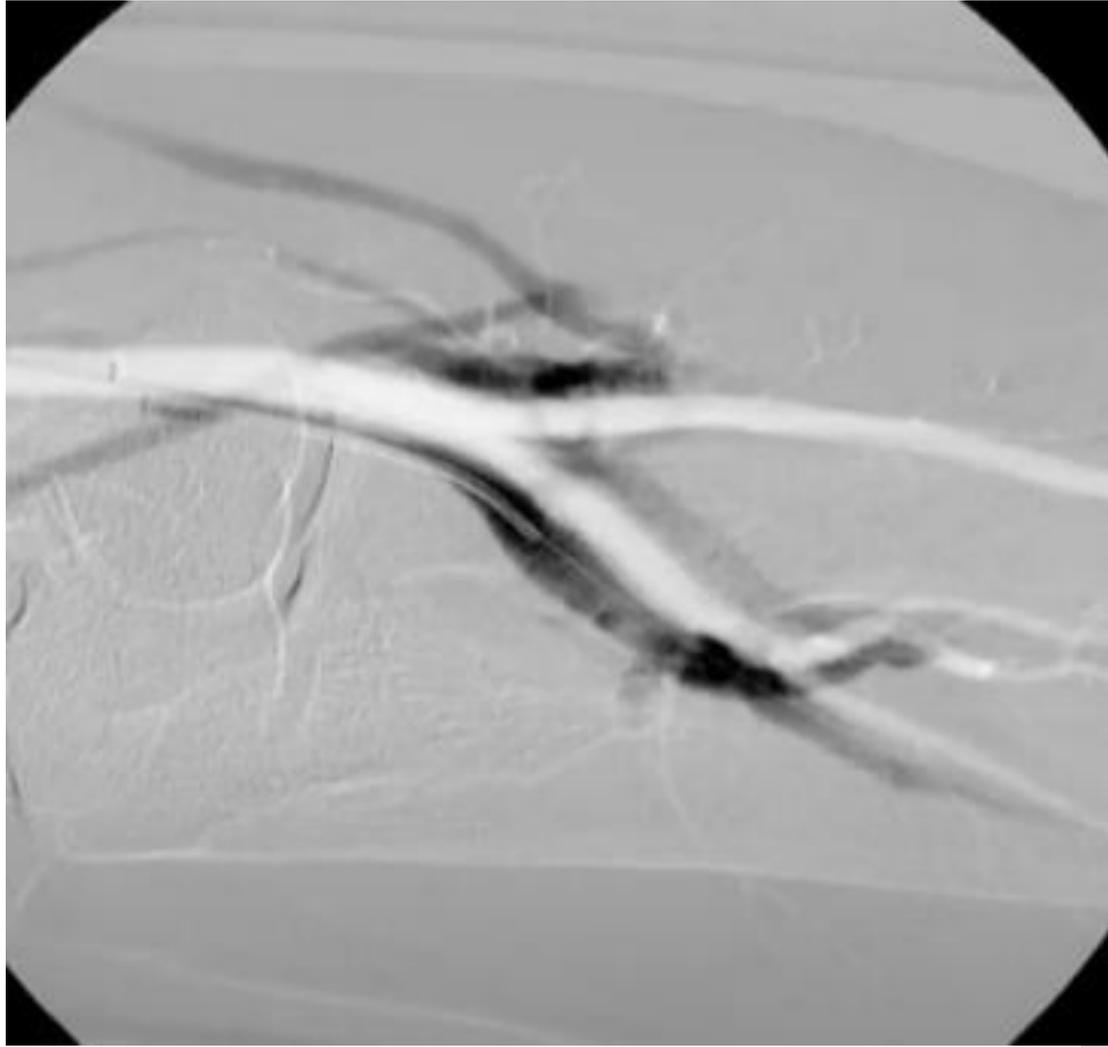
jvascsurg 2021



jvascsurg 2021





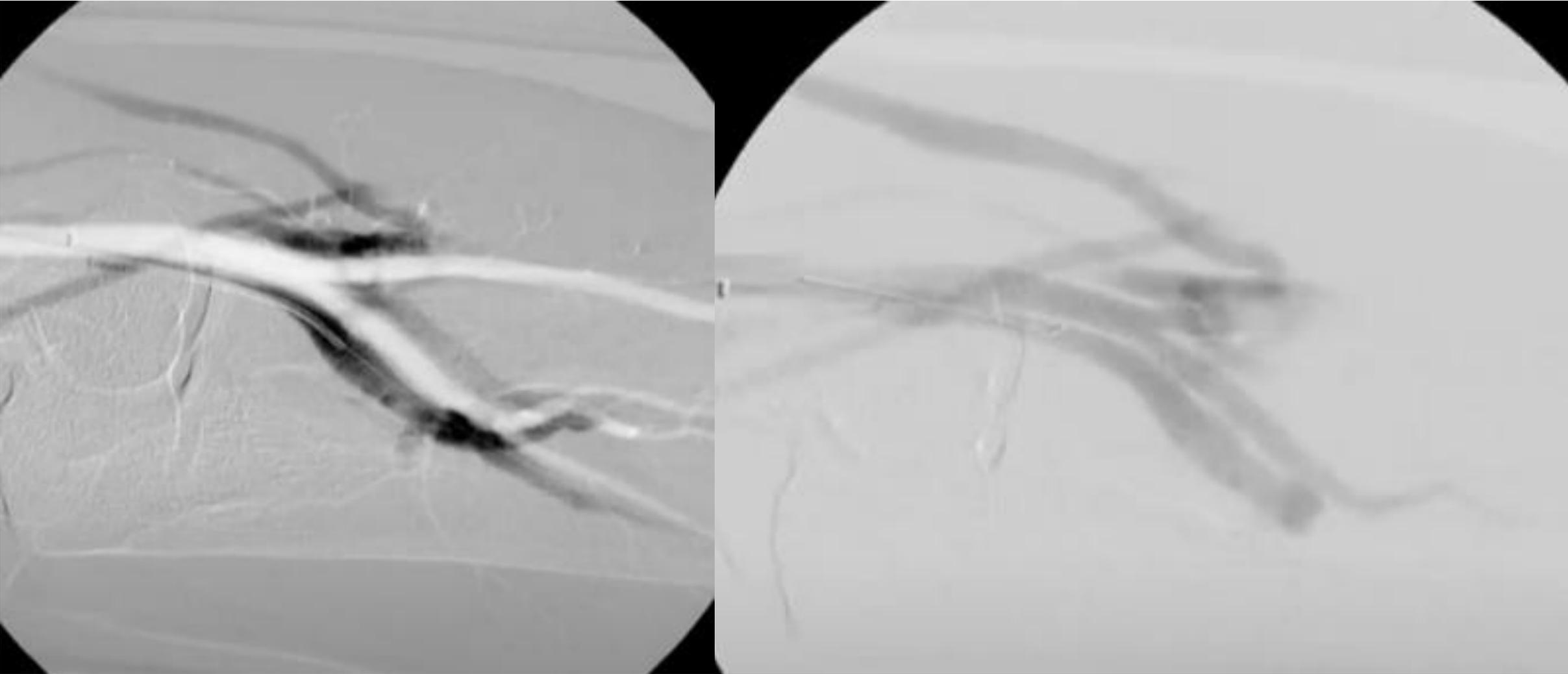


Ref. **WavelinQ™ EndoAVF System case - Ulnar/Ulnar Creation**

BD
구독자 2.84만명

구독

KSVES



Ref. **WavelinQ™ EndoAVF System case - Ulnar/Ulnar Creation**



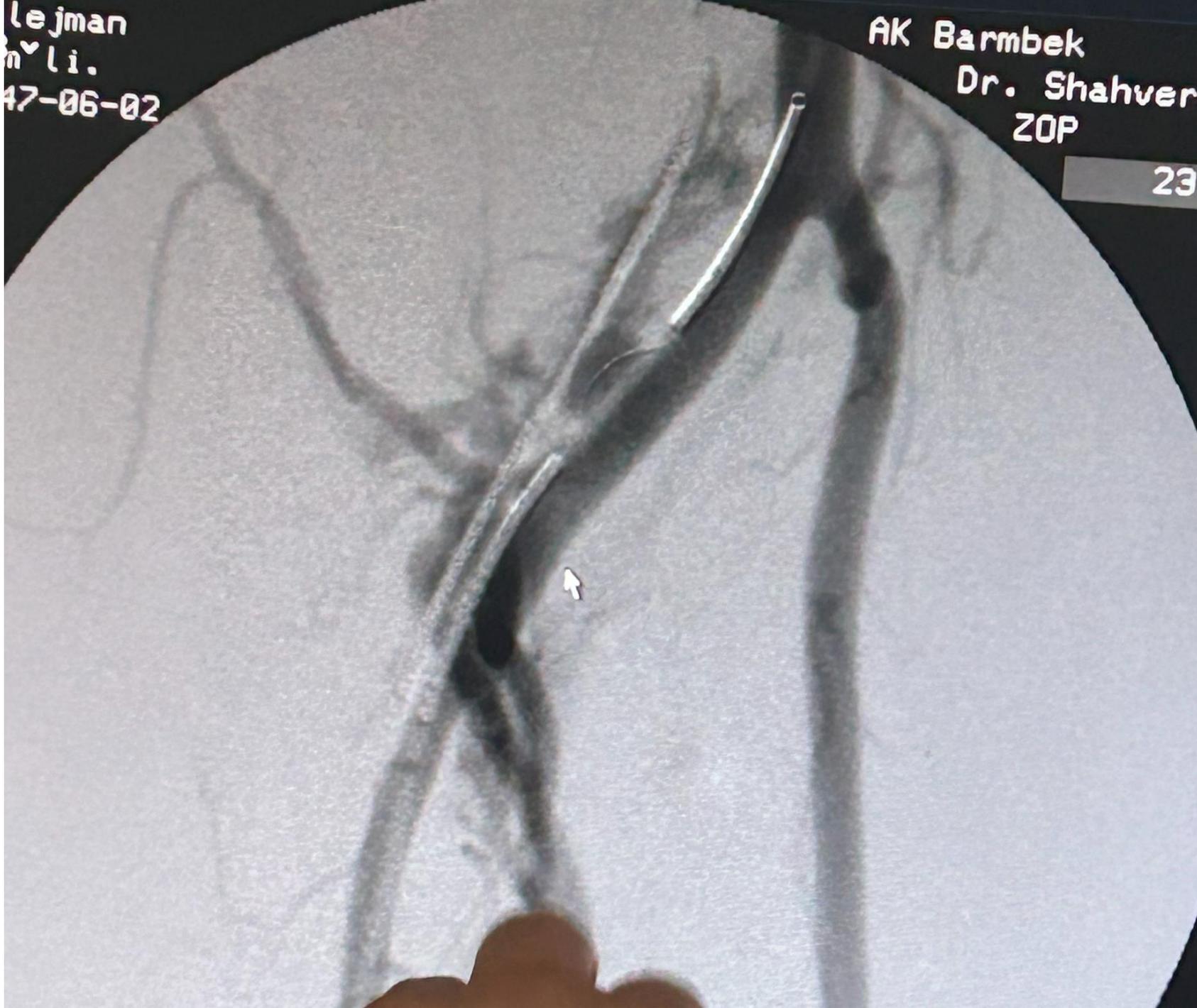
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Lejman
m'li.
47-06-02

AK Barmbek
Dr. Shahver
ZOP

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Ref. **WavelinQ™ EndoAVF System case - Ulnar/Ulnar Creation**

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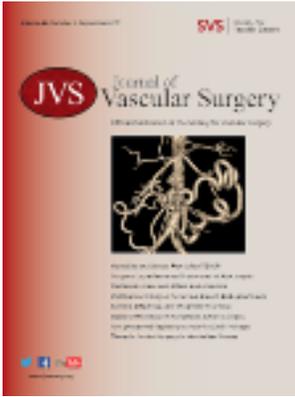


Ref. **WavelinQ™ EndoAVF System case - Ulnar/Ulnar Creation**

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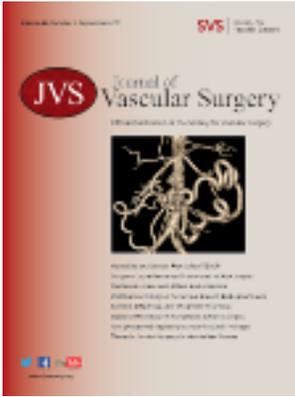
Early results of percutaneous arteriovenous fistula creation with the Ellipsys Vascular Access System



Alexandros Mallios, MD,^a William C. Jennings, MD,^b Benoit Boura, MD,^a Alessandro Costanzo, MD,^a Pierre Bourquelot, MD,^c and Myriam Combes, MD, MBA,^a *Paris, France; and Tulsa, Okla*

2018 JVS

- 2017.5~ 2017.10, 34 pts.
- 97% technical success (33/34)
- Patency: 94%
- Mean access flow (brachial artery): 946 mL/min
- Superficialization (n=1)



Midterm results of percutaneous arteriovenous fistula creation with the Ellipsys Vascular Access System, technical recommendations, and an algorithm for maintenance

2020 JVS

Alexandros Mallios, MD,^a Pierre Bourquelot, MD,^b Gilbert Franco, MD,^c Hadia Hebibi, MD,^d Hortence Fonkoua, MD,^a Mahmoud Allouache, MD,^a Alessandro Costanzo, MD,^a Romain de Blic, MD,^a Ghazi Harika, MD,^a Benoit Boura, MD,^a and William C. Jennings, MD,^e *Paris and Villejuif, France; and Tulsa, Okla*

- 2017.5~ 2019.7, 234 pts.
- 99% technical success (232/234)
- 1 year primary: 54%, primary assisted: 85%, 1 year secondary: 96%
- Mean access flow (brachial artery): 923 mL/min
- Early cannulation (<2weeks, 6%, n=14)
- Superficialization (11%, n=24)
- Surgical conversion(later, n=3)

Long Term Results Of The Ellipsys Fistula

SETTING AND PARTICIPANTS

Prospective, multi-center, single arm Study



107 Participants



Enrollment period: February 2015 – June 2016

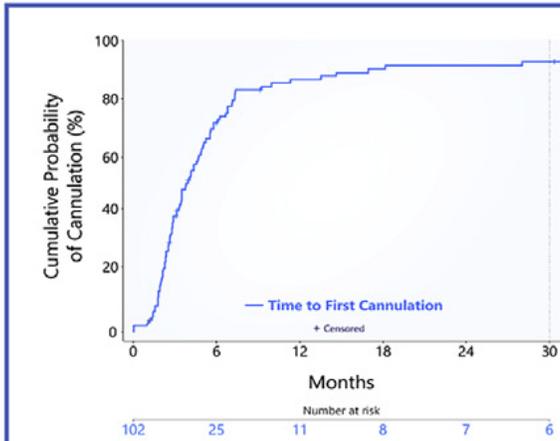


- 5 Outpatient Office-based labs
- 8 Investigators – 7 Interventional Nephrologists



Technical Success 95%

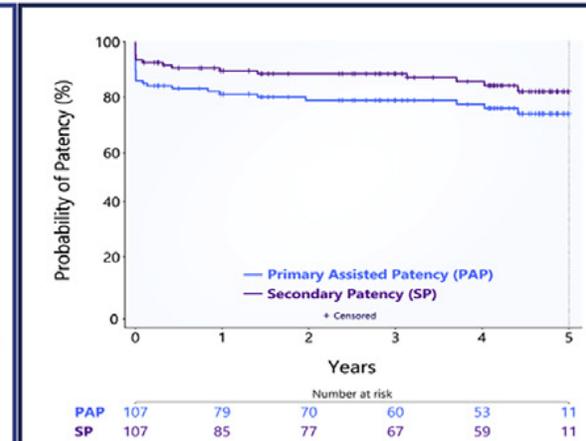
FISTULA USE, FUNCTIONAL, PRIMARY ASSISTED AND CUMMULATIVE PATENCY



92%
Fistula Use through 5 Years



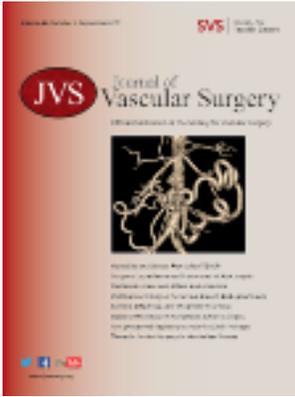
91.8%
Functional Patency through 5 Years



82%
Cumulative Patency through 5 Years

CONCLUSION: Long-term follow-up of percutaneous arteriovenous fistula with the Ellipsys vascular access system provided durable, effective dialysis, with low rates of access maintenance procedures, and without major complications.

J Vasc Interv Radiol 2022; 33:1143–1150
<https://doi.org/10.1016/j.jvir.2022.05.016>



Comparison of surgical versus percutaneously created arteriovenous hemodialysis fistulas

Ghazi Harika, MD,^a Alexandros Mallios, MD,^a Mahmoud Allouache, MD,^a Alessandro Costanzo, MD,^a Romain de Blic, MD,^a Benoit Boura, MD,^a and William C. Jennings, MD,^b *Paris, France; and Tulsa, Okla*

2021 JVS

Conclusions

- Fistulas created percutaneously with the Ellipsys system showed superior maturation rates and similar patency with s-AVFs created in an experienced high-volume vascular surgery practice.
- p-AVFs had a lower risk of wound healing issues, infection, and surgical revision. Larger, prospective, randomized multicenter studies are needed to confirm these findings

Comparison of Surgical (s-AVF) Versus Percutaneously Created (p-AVF) Arteriovenous Hemodialysis Fistulas



Single-center retrospective review



107 Ellipsys device p-AVF patients vs. 107 s-AVF patients



p-AVF		s-AVF
65%	6 Week Maturation P=0.01	50%
61%	1 Yr Primary Patency P<0.01	86%
90%	1 Yr Secondary Patency P=NS	91%
55%	2 Yr Primary Patency P=0.48	52%



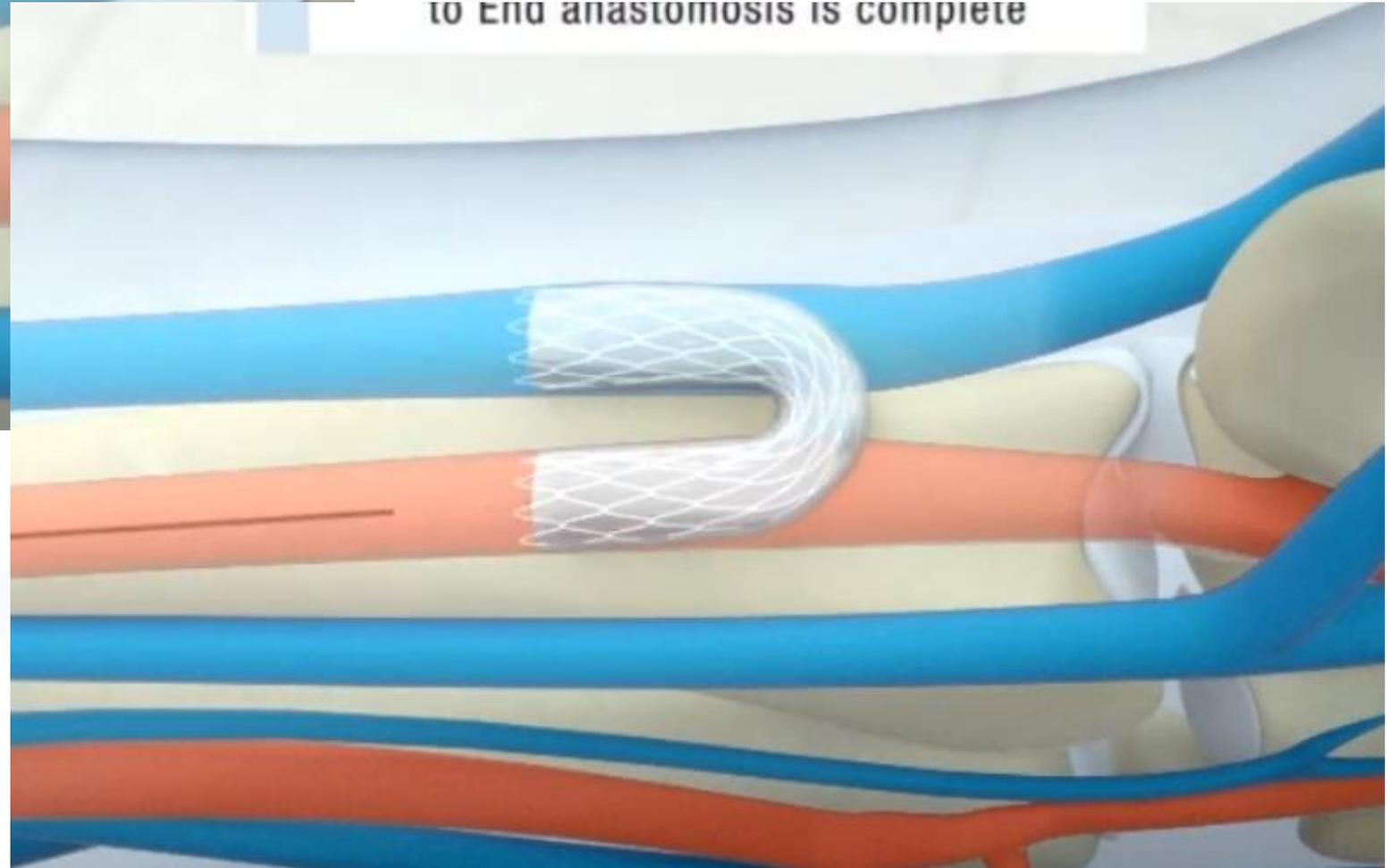
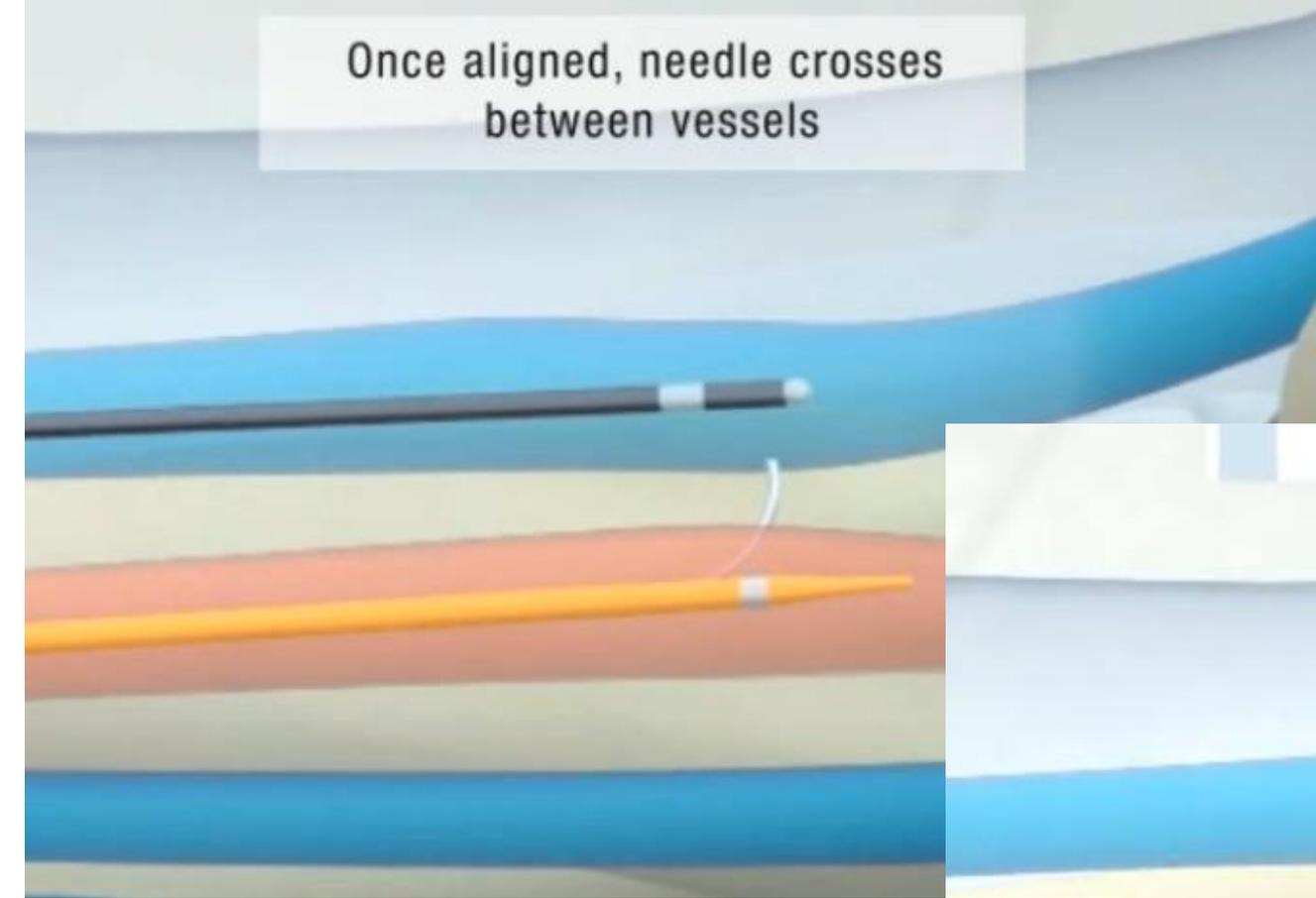
EndoAVF 2.0... ?



Stent Tek

Once aligned, needle crosses
between vessels

TO END anastomosis is complete



ESKD landscapes: current challenges in the kidney patient journey and quality of life related topics

N. Inston

Long-term experience and comparison of distal radiocephalic AVFs with and without the external support device: VasQ™

R. Shahverdyan

Long-term results of percutaneous AVFs: Are we ready to include it in the guidelines?

M. Wasse

The all new percutaneous AVF Device: Velocity

D. Hentschel

Long-Term experience with early-cannulations AVGs and HeRO™ Graft

J. Gilbert

The all new bioabsorbable arteriovenous graft: aXess

M. Tozzi

Generation Percutaneous Fistula Creation

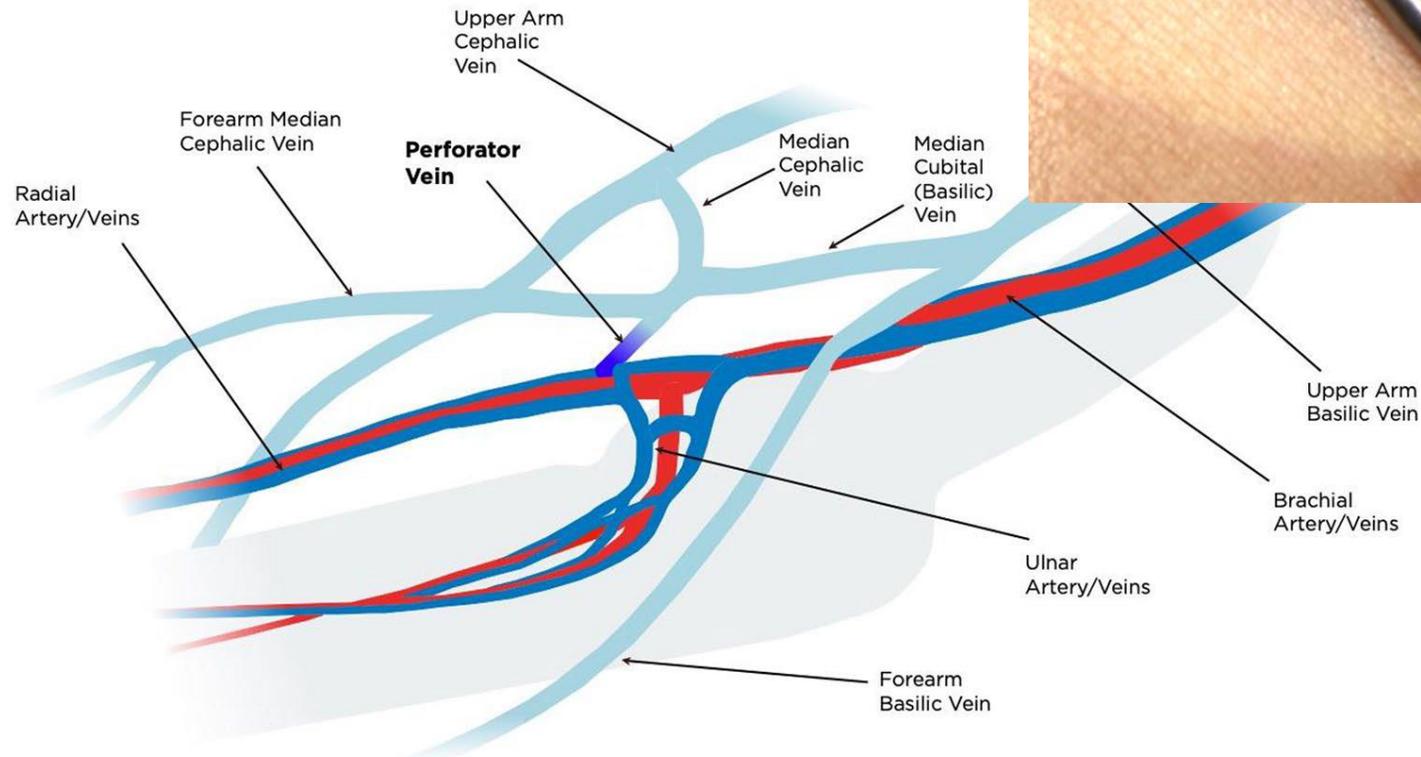
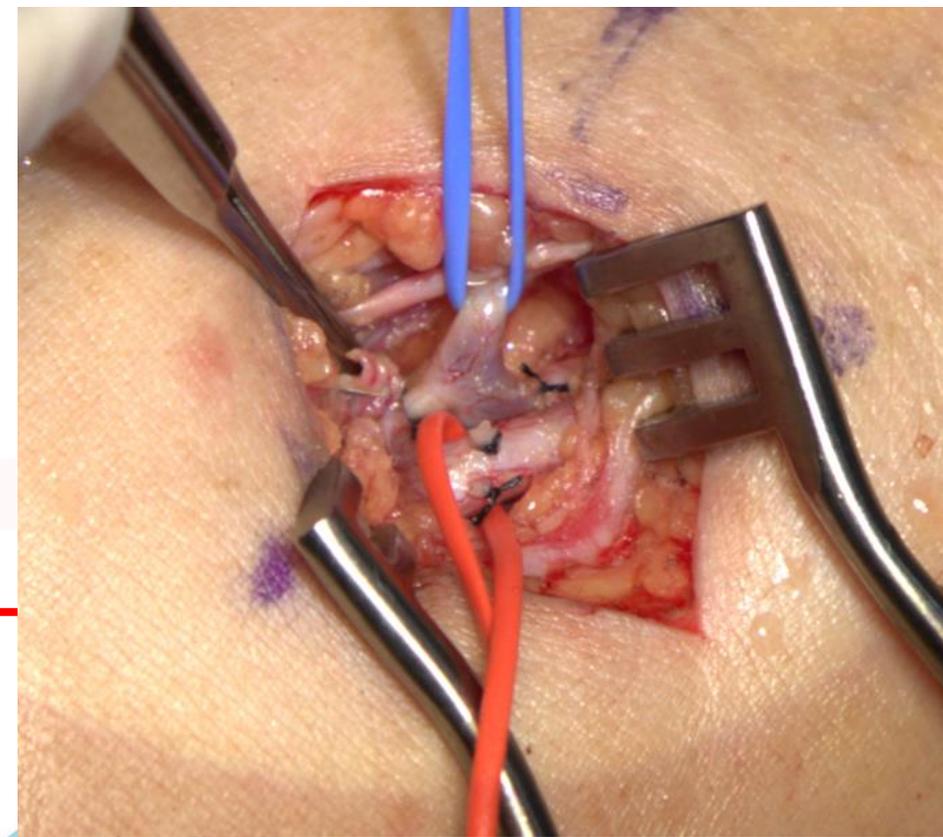
Vascular Access

The Velocity™
Arterio-Venous

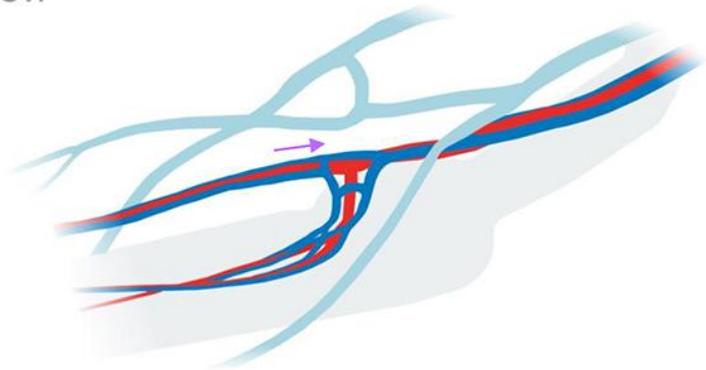
Novel classification of proximal forearm perforator vein in the planning and creation of percutaneous and surgical Gracz-type arteriovenous fistulae

The Journal of Vascular Access
2024, Vol. 25(3) 872–882
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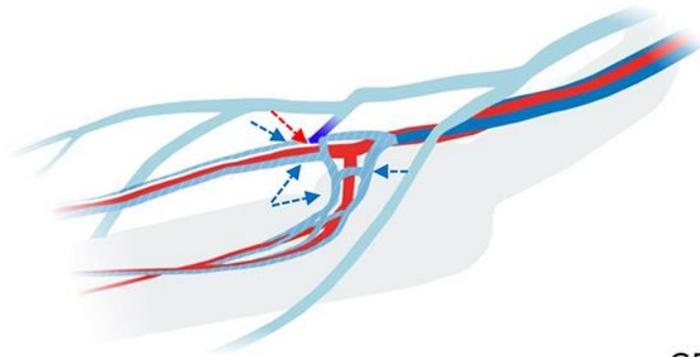
Robert Shahverdyan¹ , Klaus Konner², Stephan Segerer³
and Haimanot Wasse⁴ 



0.1

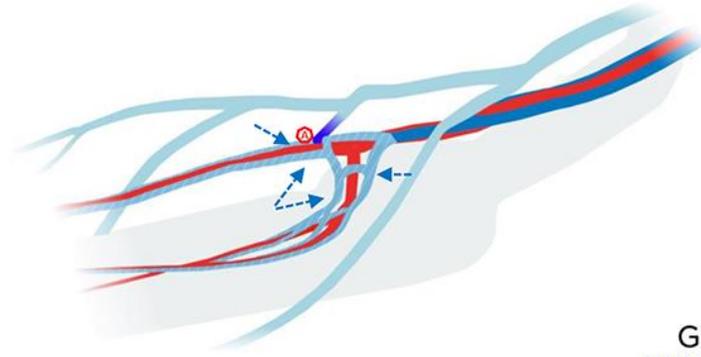


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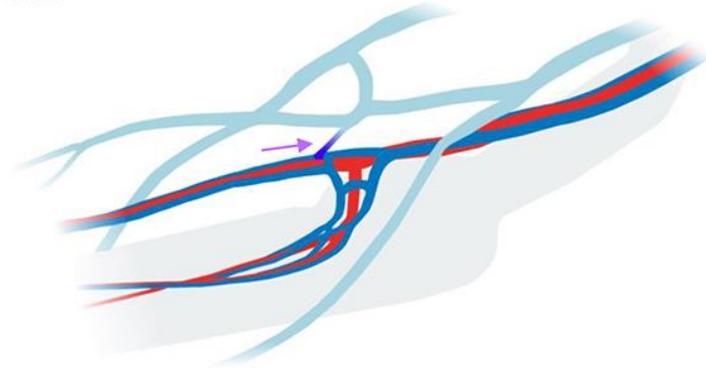


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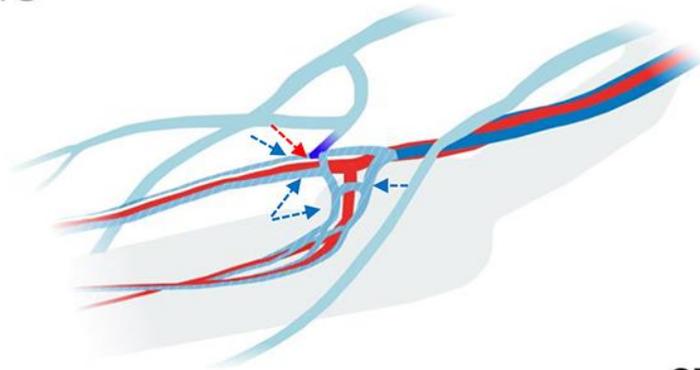
2B

GRACZ
ELLIPSY

0.2

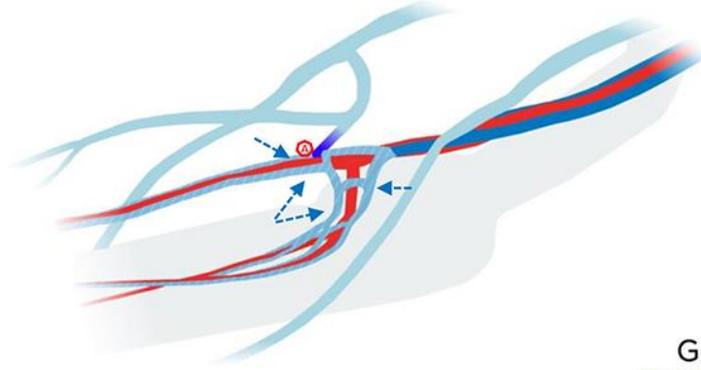


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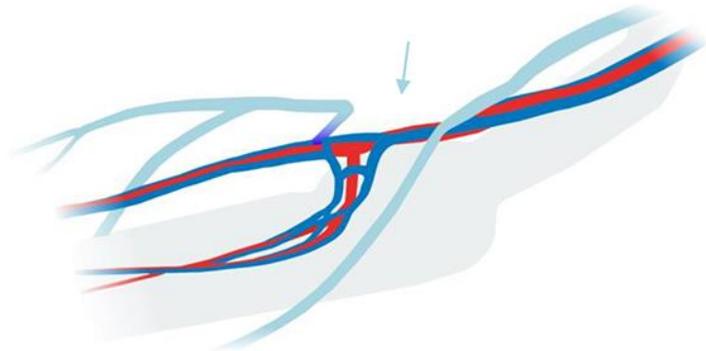


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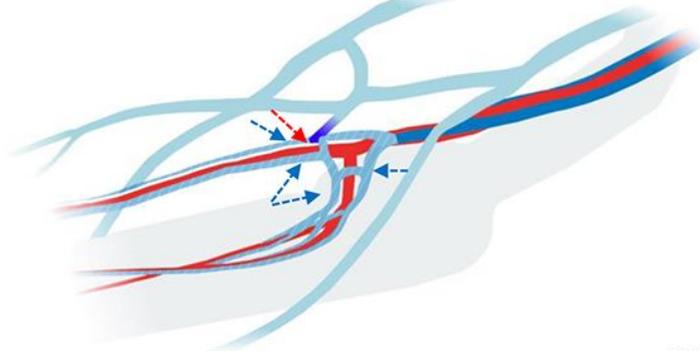
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GRACZ
ELLIPSY

0.3

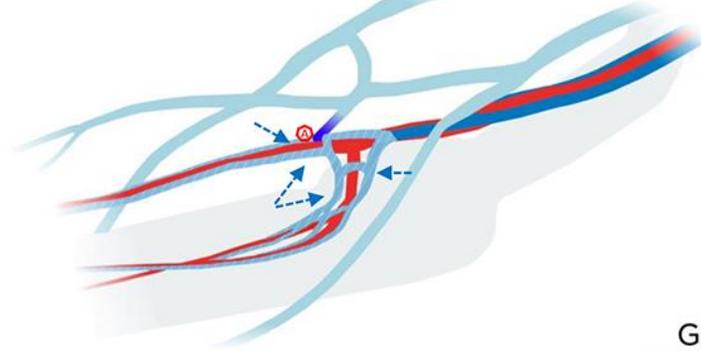


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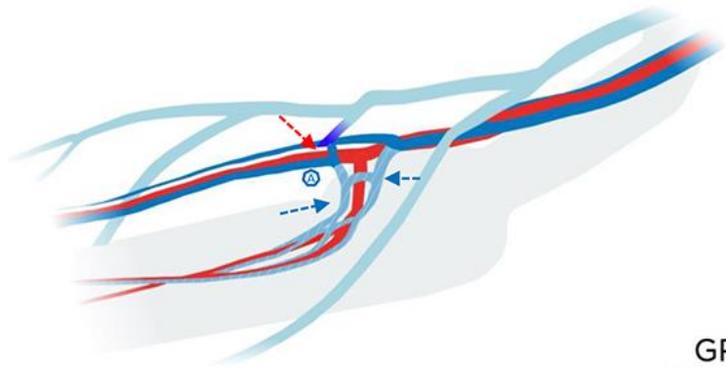


GRACZ

2D

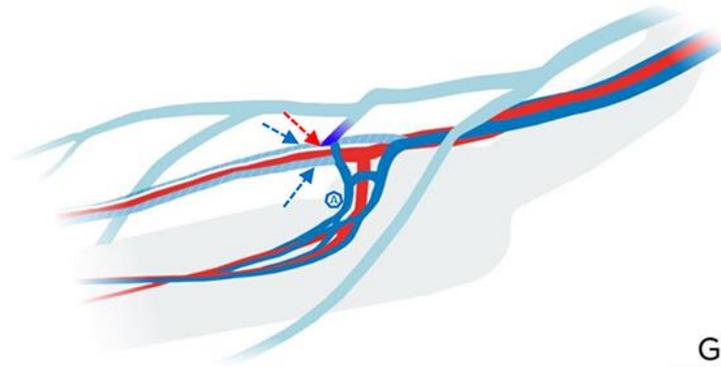
GRACZ
ELLIPSY

3RB



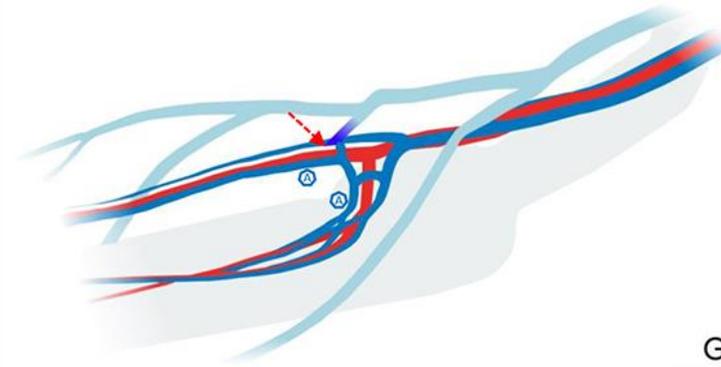
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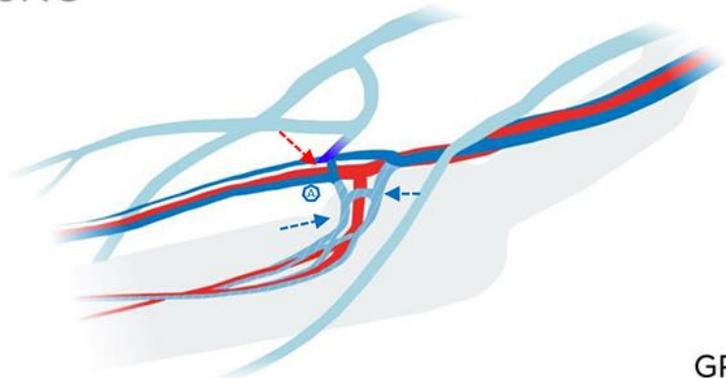
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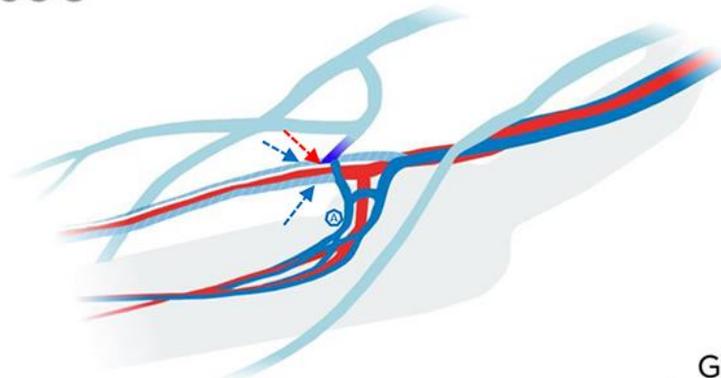
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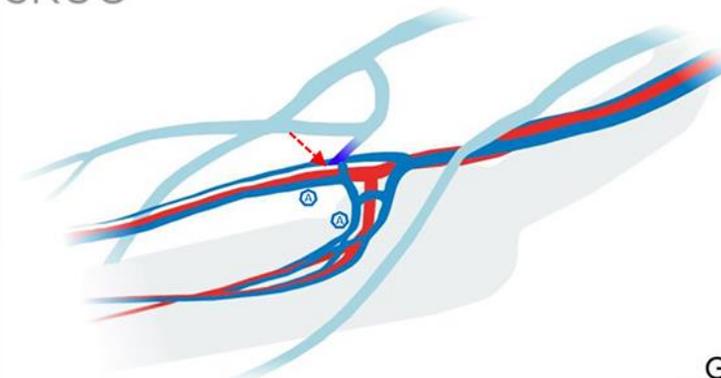
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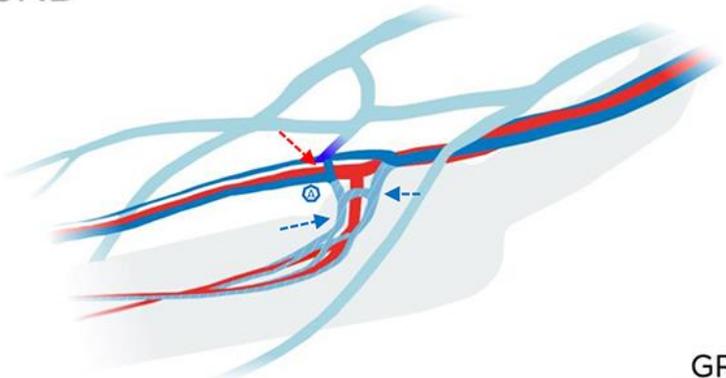
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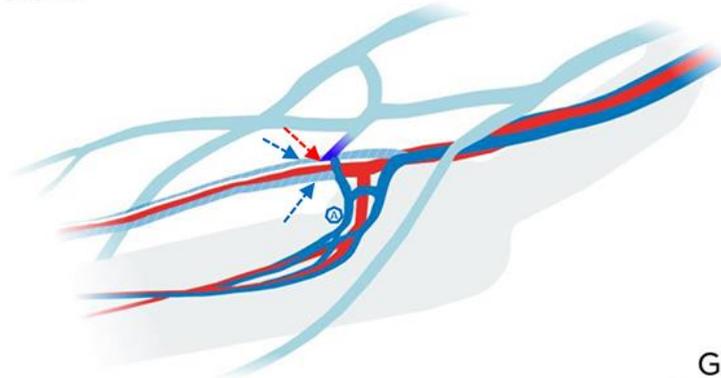
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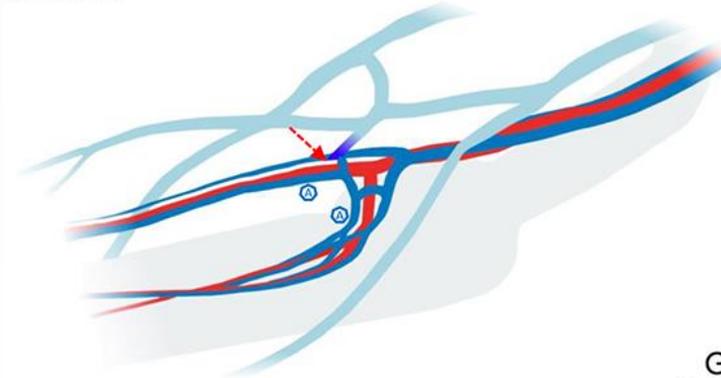
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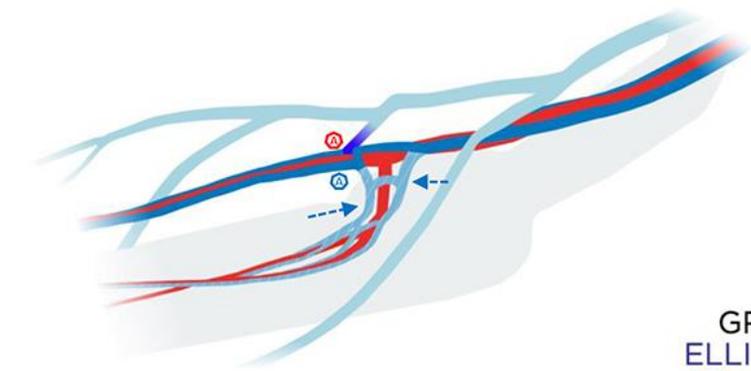
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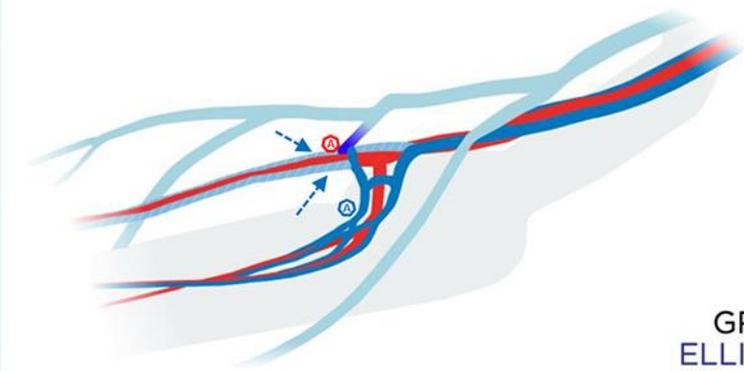
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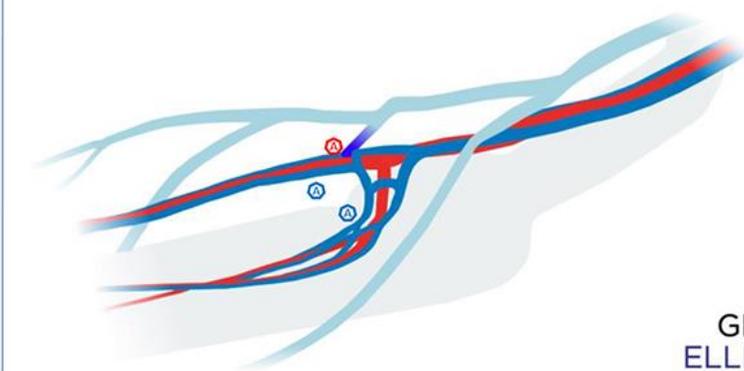
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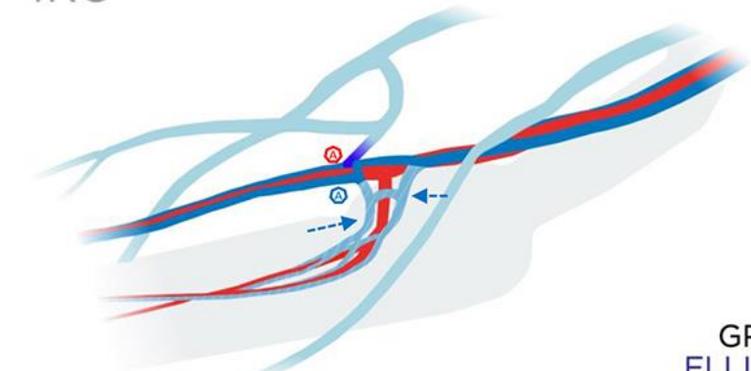
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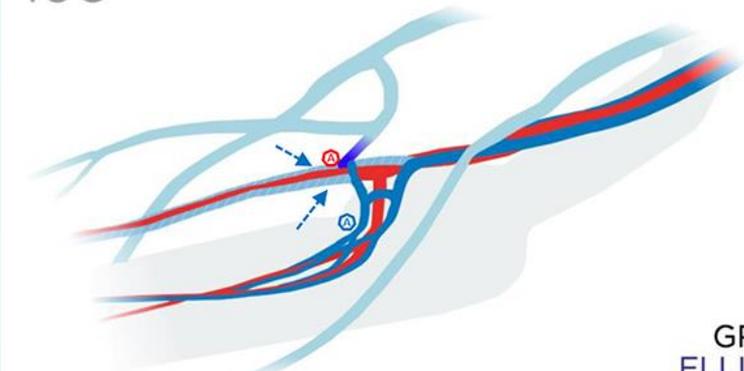
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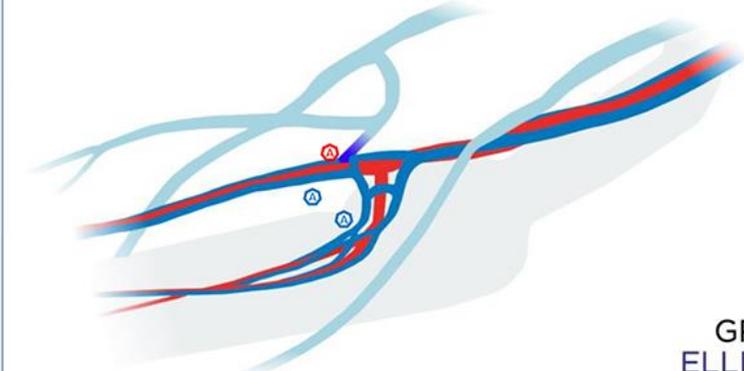
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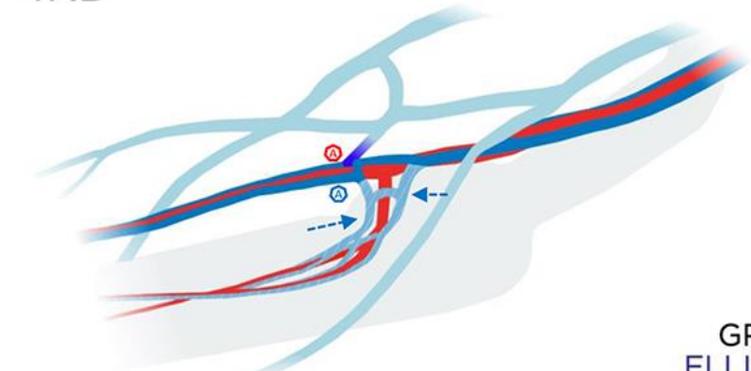
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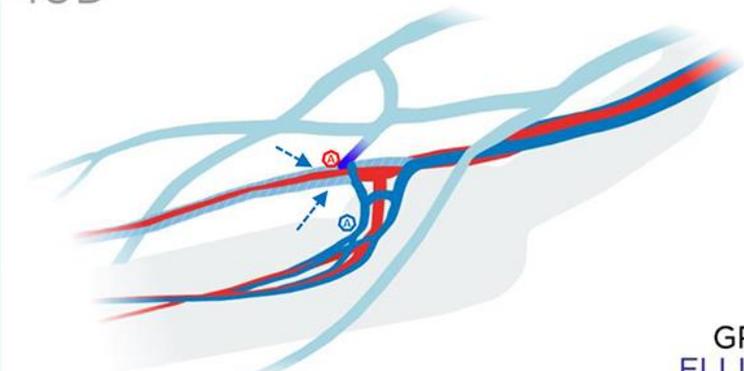
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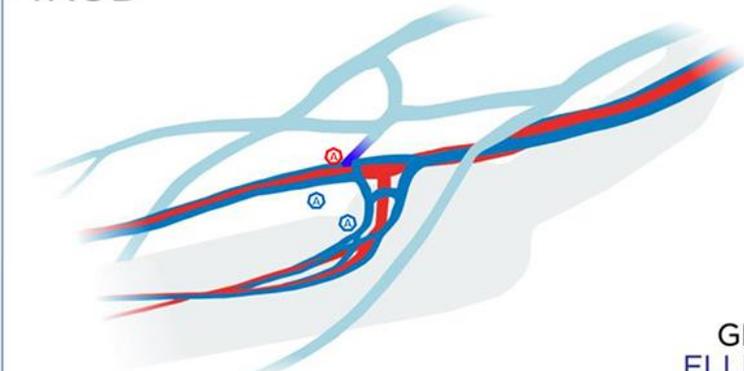
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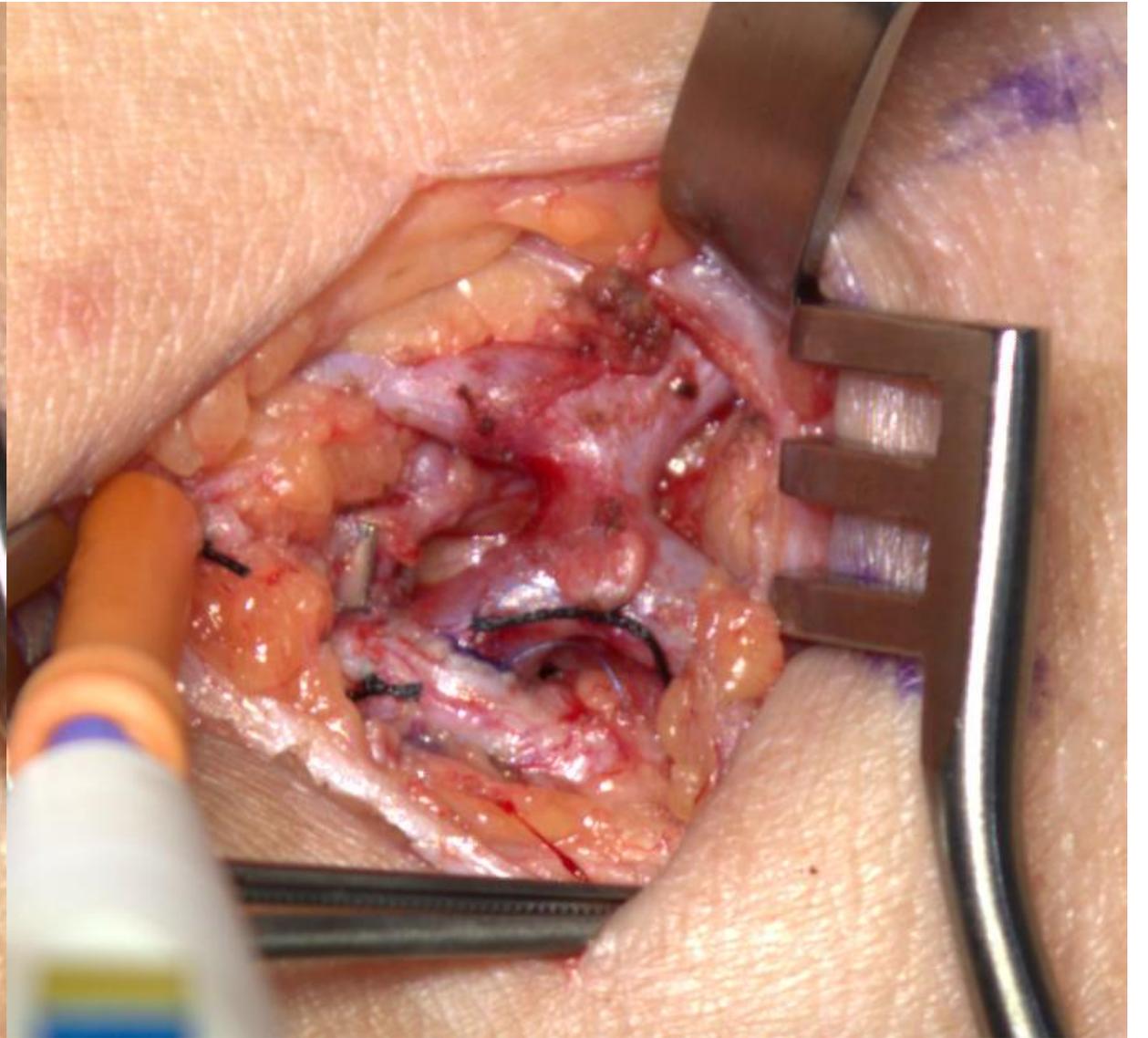
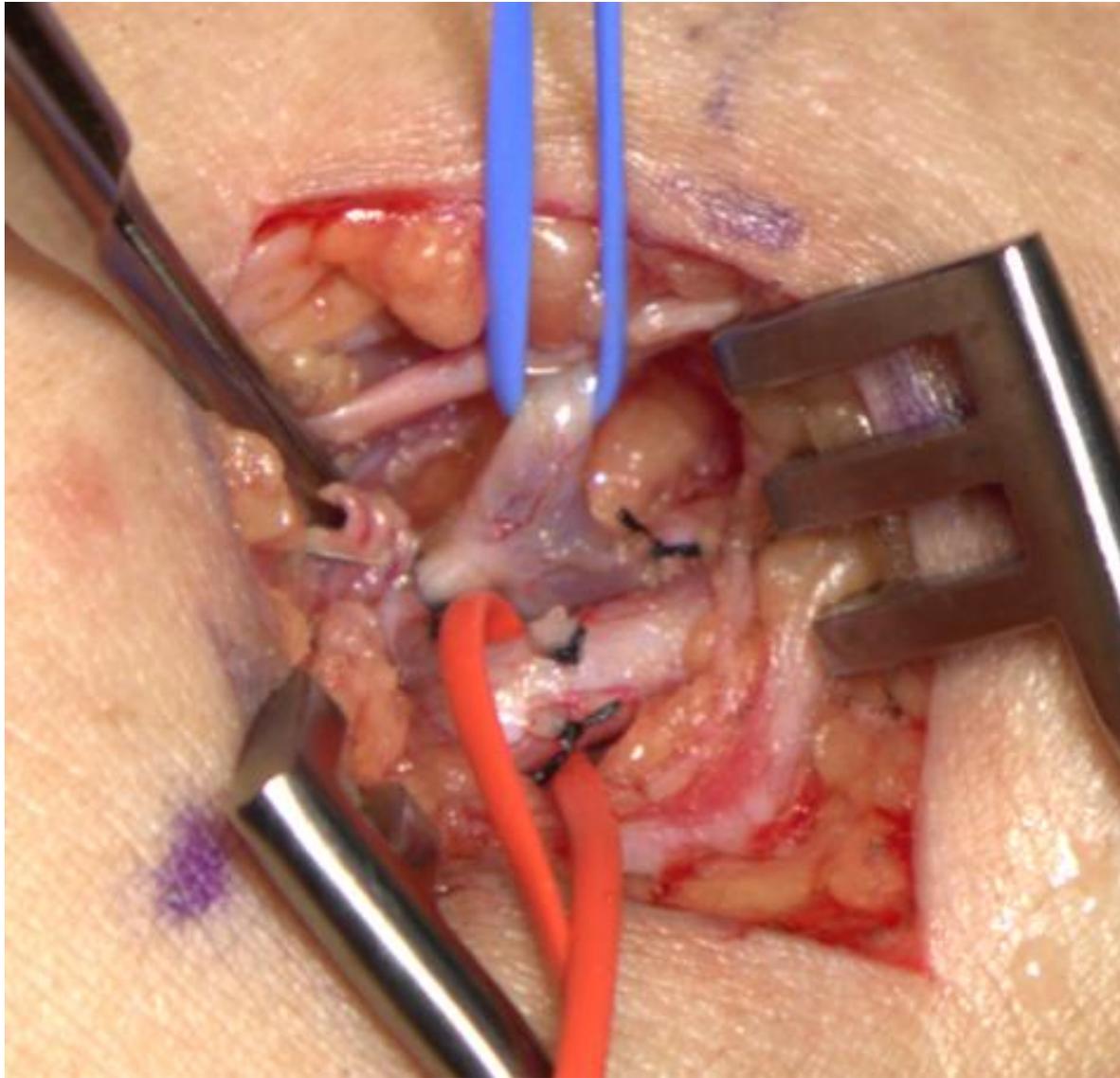


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Thank you

