



JANUARY 19-21 2017  
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PARIS, FRANCE

# Un garrot étroit est utile pour le 2ème temps de superficialisation des veines basiliques ou brachiales

Nicola Pirozzi

[nicola.pirozzi@uniroma1.it](mailto:nicola.pirozzi@uniroma1.it)

[www.nefrologiainterventistica.com](http://www.nefrologiainterventistica.com)



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## Disclosure

Speaker name: Nicola Pirozzi

I do not have any potential conflict of interest

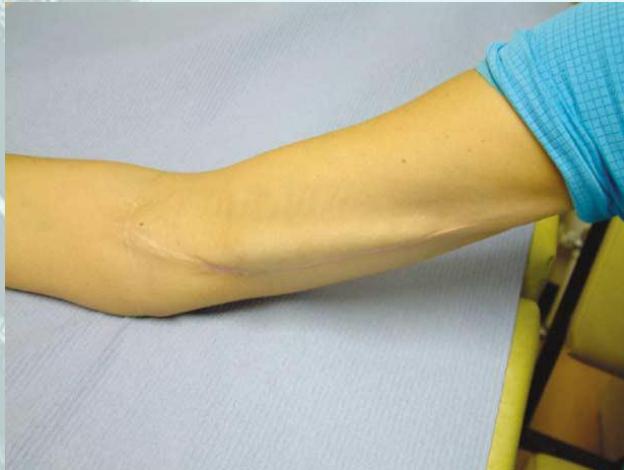


# Humero-basilic AVF + vein superficialisation

Dagher F, Gelbert R, Ramos E, Sadler J.

**The use of basilic vein and brachial artery as an A-V fistula for long term hemodialysis.**

J Surg Res 1976;20:373–6.



***The Brachial Artery-basilic Vein Arterio-venous Fistula in Vascular Access for Haemodialysis—  
A Review Paper***

F.P. Dix, Y. Khan, H. Al-Khaffaf

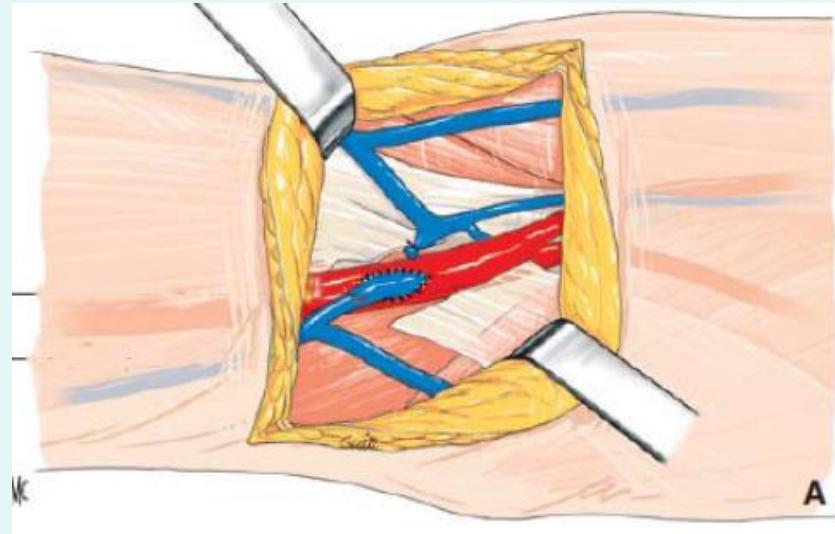
European Journal of Vascular and Endovascular Surgery

Volume 31, Issue 1, Pages 70-79 (January 2006)



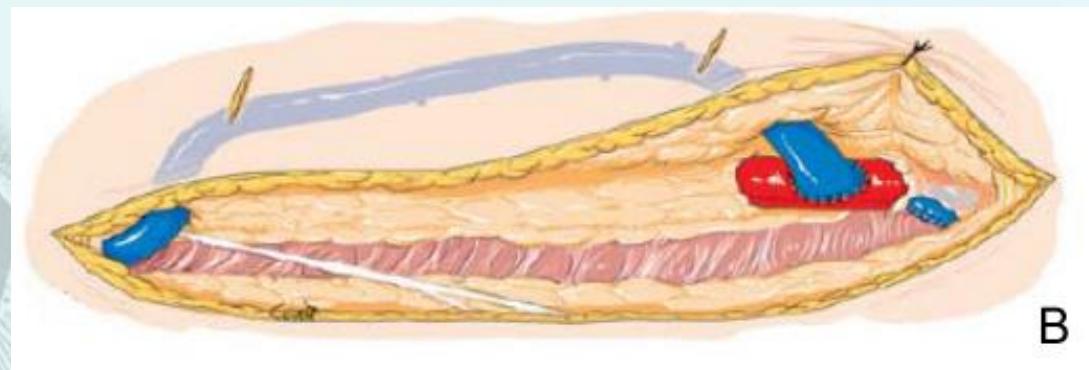
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# Humero-basilic AVF



A

+ vein superficialisation



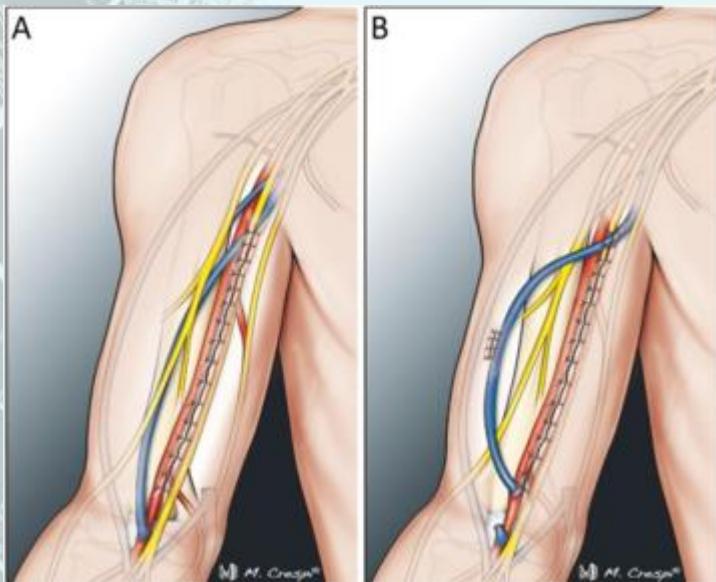
B



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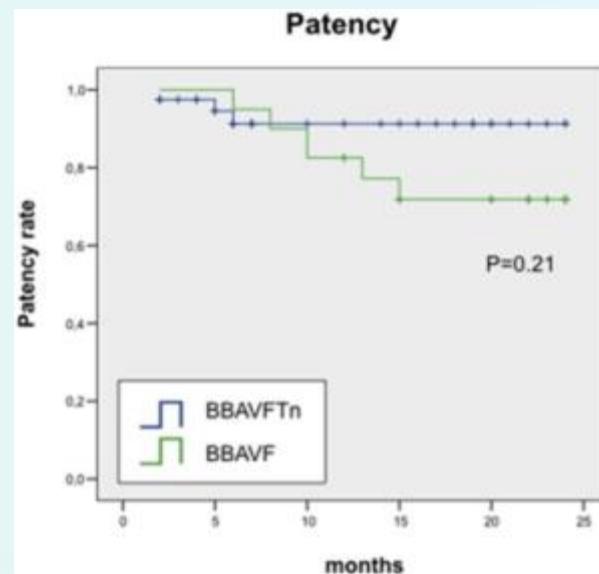
## A Comparison of Two Surgical Techniques for the Second Stage of Brachiobasilic Arteriovenous Fistula Creation

Mauro R et al Artif Organs. 2016



Days	BBAVFTn	BBAVF	P
Mean length of hospital stay	2(1)	3(2)	0.52
Time of venipuncture	11(10)	23(8)	0.01
Blood transfusion	0/40 (0%)	1/40 (3%)	1
Ease of cannulation	32/40 (80%)	15/40 (38%)	<0.001

FUSH, fistula used successfully for hemodialysis; BBAVF, second stage of brachiobasilic arteriovenous fistula; BBAVFTn, second stage of brachiobasilic arteriovenous fistula with tunneling of the basilic vein.



« elevation » VS « transposition »



[J Vasc Surg.](#) 2015 Mar;61(3):809-16.

## **Similar failure and patency rates when comparing one- and two-stage basilic vein transposition.**

[Cooper J<sup>1</sup>](#), [Power AH<sup>1</sup>](#), [DeRose G<sup>1</sup>](#), [Forbes TL<sup>1</sup>](#), [Dubois L<sup>2</sup>](#).

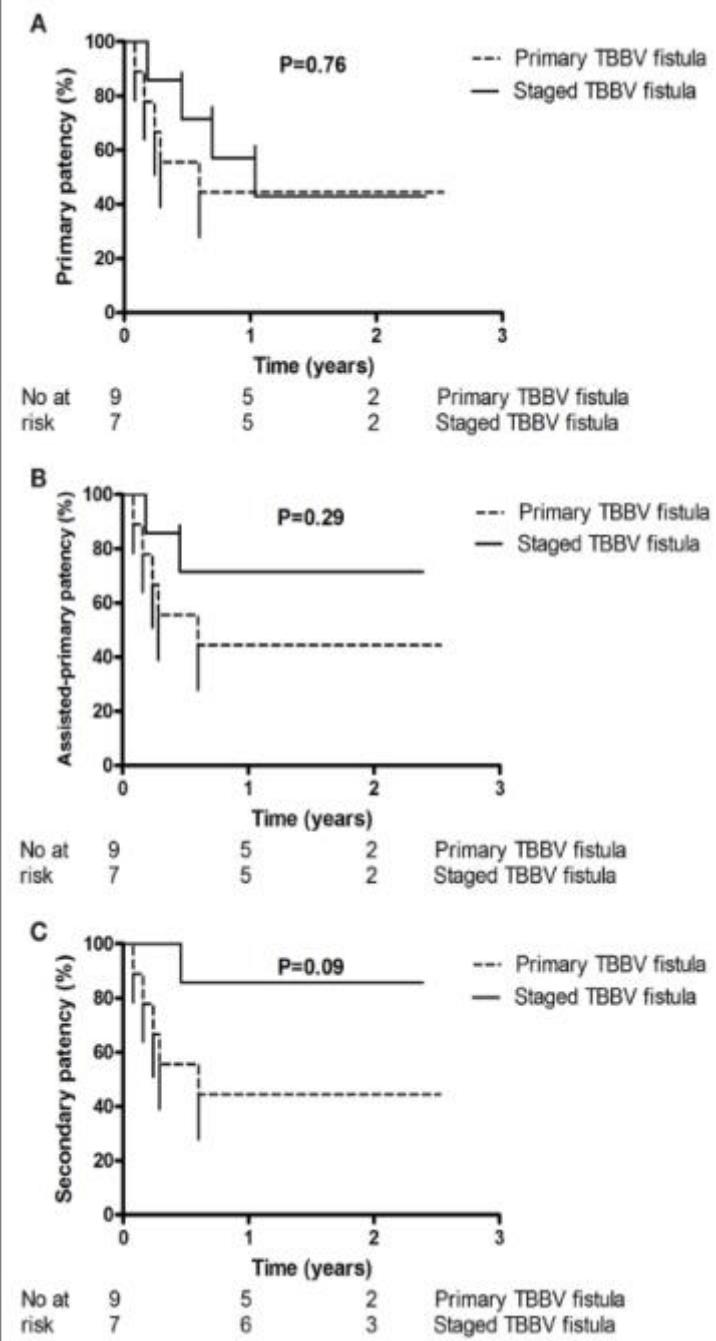
### **CONCLUSIONS:**

**Meta-analysis of the existing literature comparing one-stage and two-stage basilic vein transposition suggests no difference in failure and patency rates, despite the two-stage procedure's being used in patients with smaller basilic veins.** These findings are limited by the small size, observational design, and inconsistent quality of included studies. **Reserving a two-stage procedure for patients with smaller basilic veins appears justified, although the strength of the evidence is limited.**

Front Surg. 2015 Apr 29;2:14.

## Randomized controlled trial comparing primary and staged basilic vein transposition.

Kakkos SK, Tsolakis IA, Papadoulas SI,  
Lampropoulos GC, Papachristou EE,  
Christeas NC, Goumenos D, Lazarides MK.





J Vasc Access. 2008

## Brachial vein transposition arteriovenous fistula: is it an acceptable option for chronic dialysis vascular access?

Torina PJ, Westheimer EF, Schanzer HR.

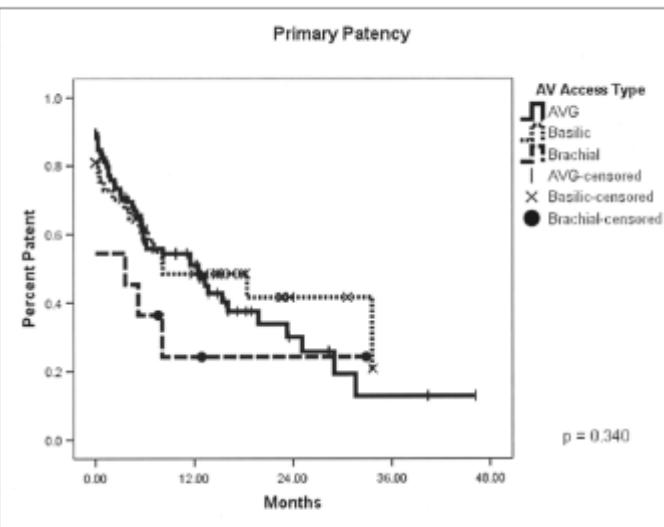


Fig. 1 - Kaplan-Meier survival analysis of the primary patency rates for one-stage brachial vein AVFs, basilic vein transposition fistulas, and AVGs.

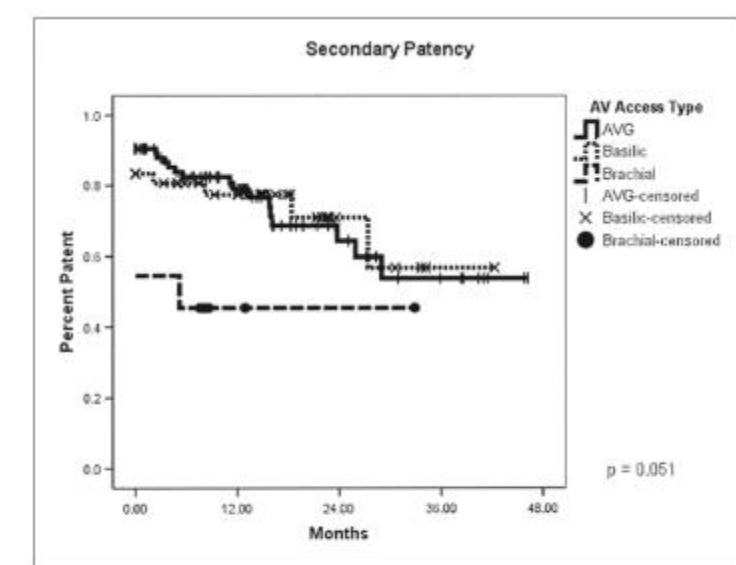


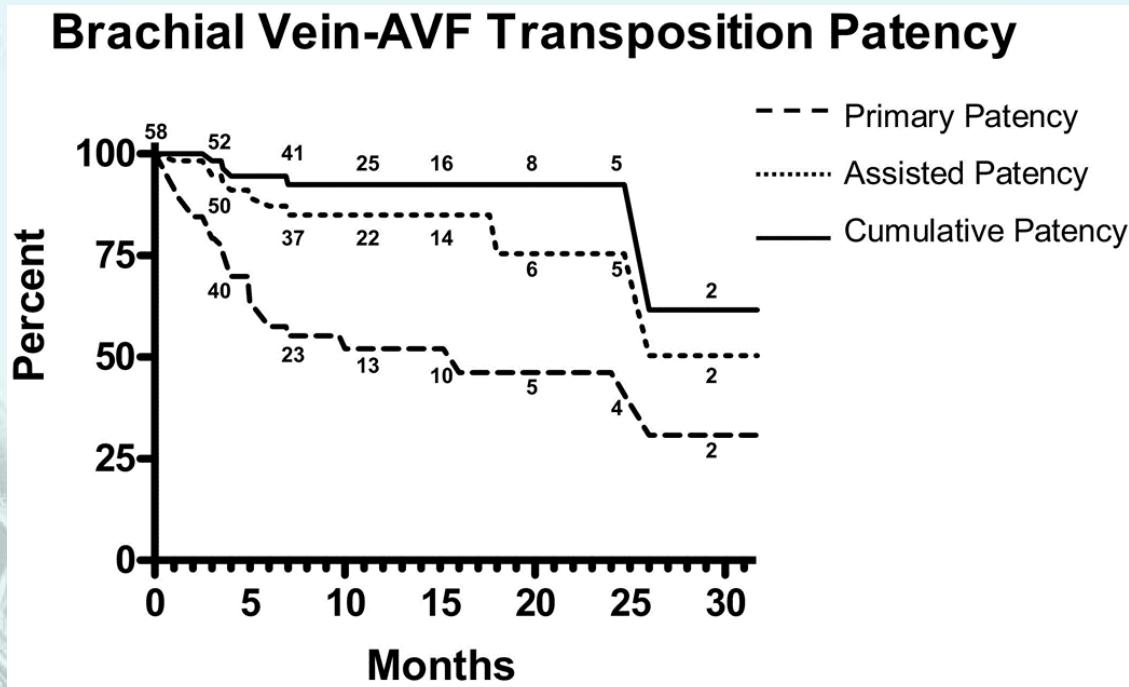
Fig. 3 - Kaplan-Meier survival analysis of the secondary patency rates for one-stage brachial vein AVFs, basilic vein transposition fistulas, and AVGs.



Jour Vasc Surg 2009

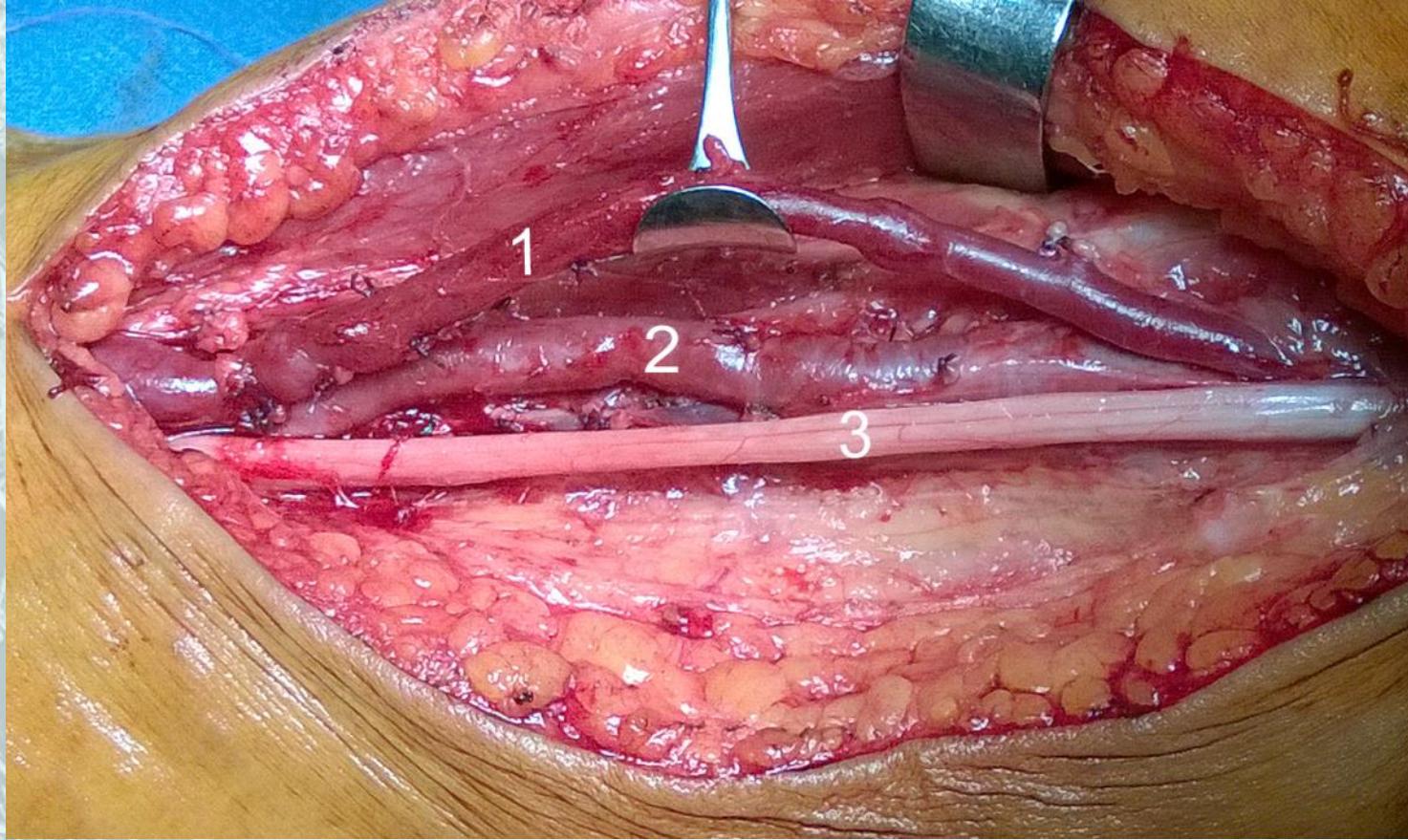
## Brachial vein transposition arteriovenous fistulas for hemodialysis access

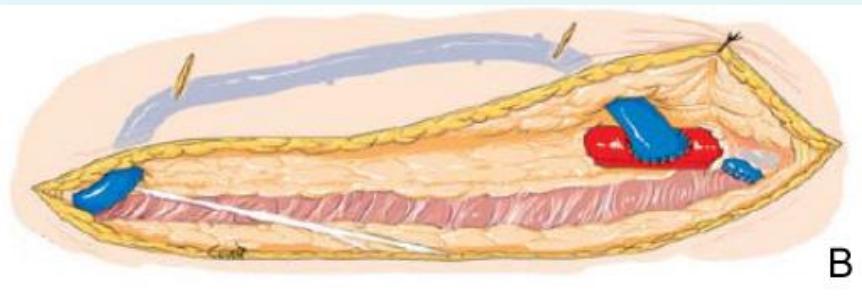
William C. Jennings, MD, Matthew J. Sideman, MD, Kevin E. Taubman, MD, Thomas A. Broughan, MD





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**Procedures requiring incision up to the axilla**



**Impossible to use preventive haemostasis**





# Preventive Haemostasis

## Bloodless operative field

- Sharp and minimally invasive procedure
- Reduced risk (bleeding, nerve injury etc)
- Reduced operative time

Bourquelot PD.

*Preventive haemostasis with an inflatable tourniquet for microsurgical distal arteriovenous fistulas for haemodialysis.*

Microsurgery. 1993;14(7):462-463.

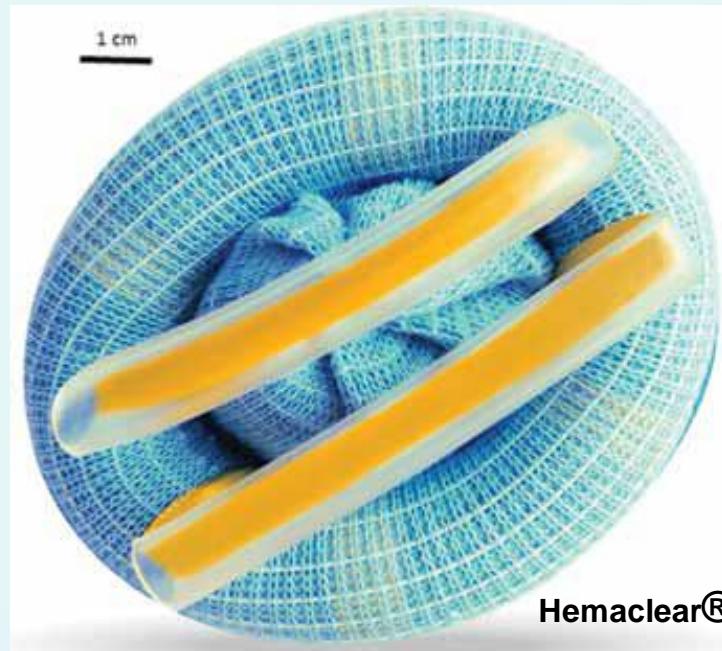
Pirozzi N et al

*Preventive hemostasis for hemodialysis vascular access surgical reinterventions.*

J Vasc Access. 2013;14(2):193-195.



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Ladenheim E et al

## A sterile elastic exsanguination tourniquet is effective in preventing blood loss during hemodialysis access surgery.

J Vasc Access. 2013;14(2):116-119.



Bourquelot P, Levy BI.

## Narrow elastic disposable tourniquet (Hemaclear®) vs. traditional wide pneumatic tourniquet for creation or revision of hemodialysis angioaccesses.

J Vasc Access. 2016 May 7;17(3):205-9





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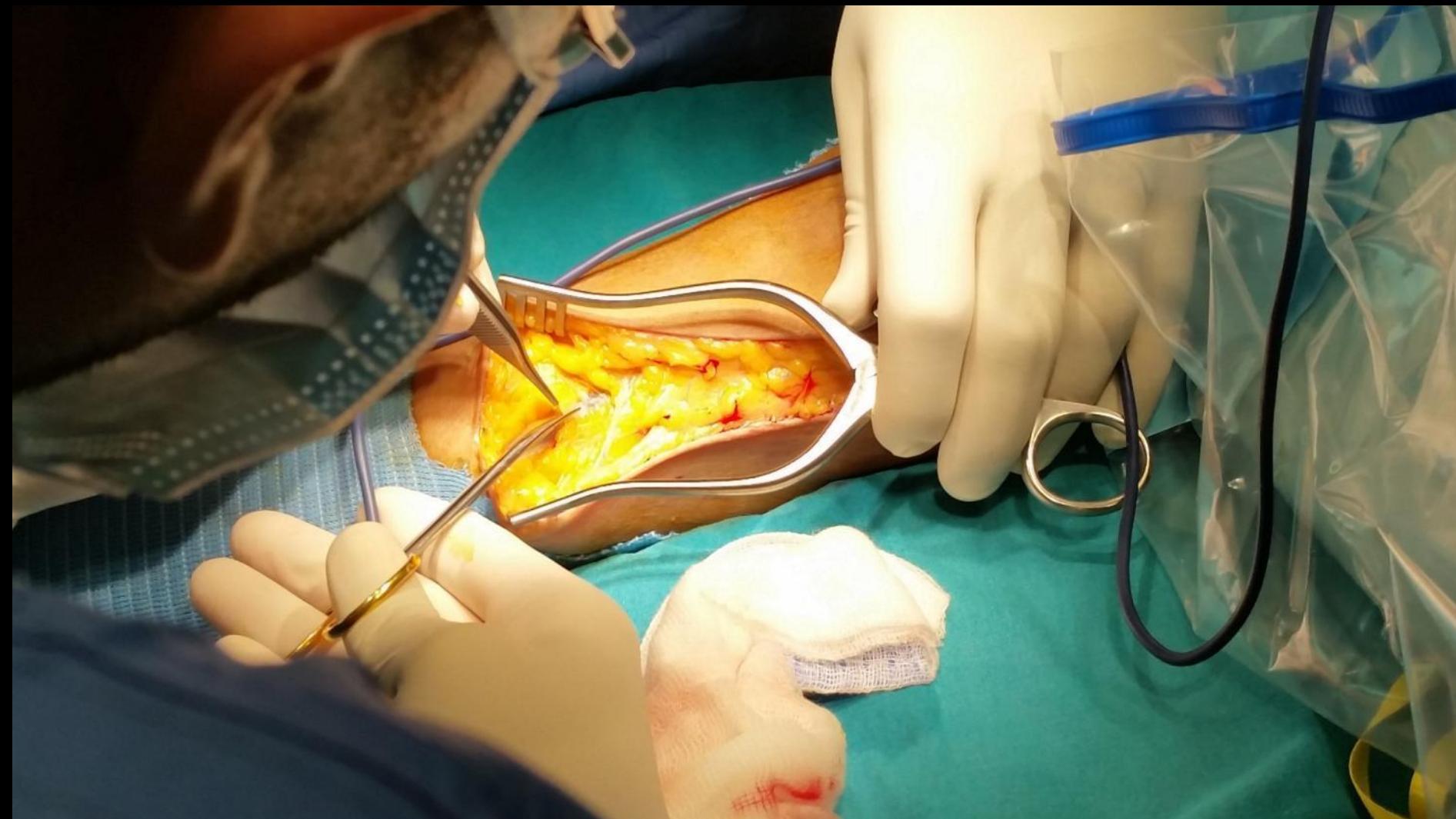
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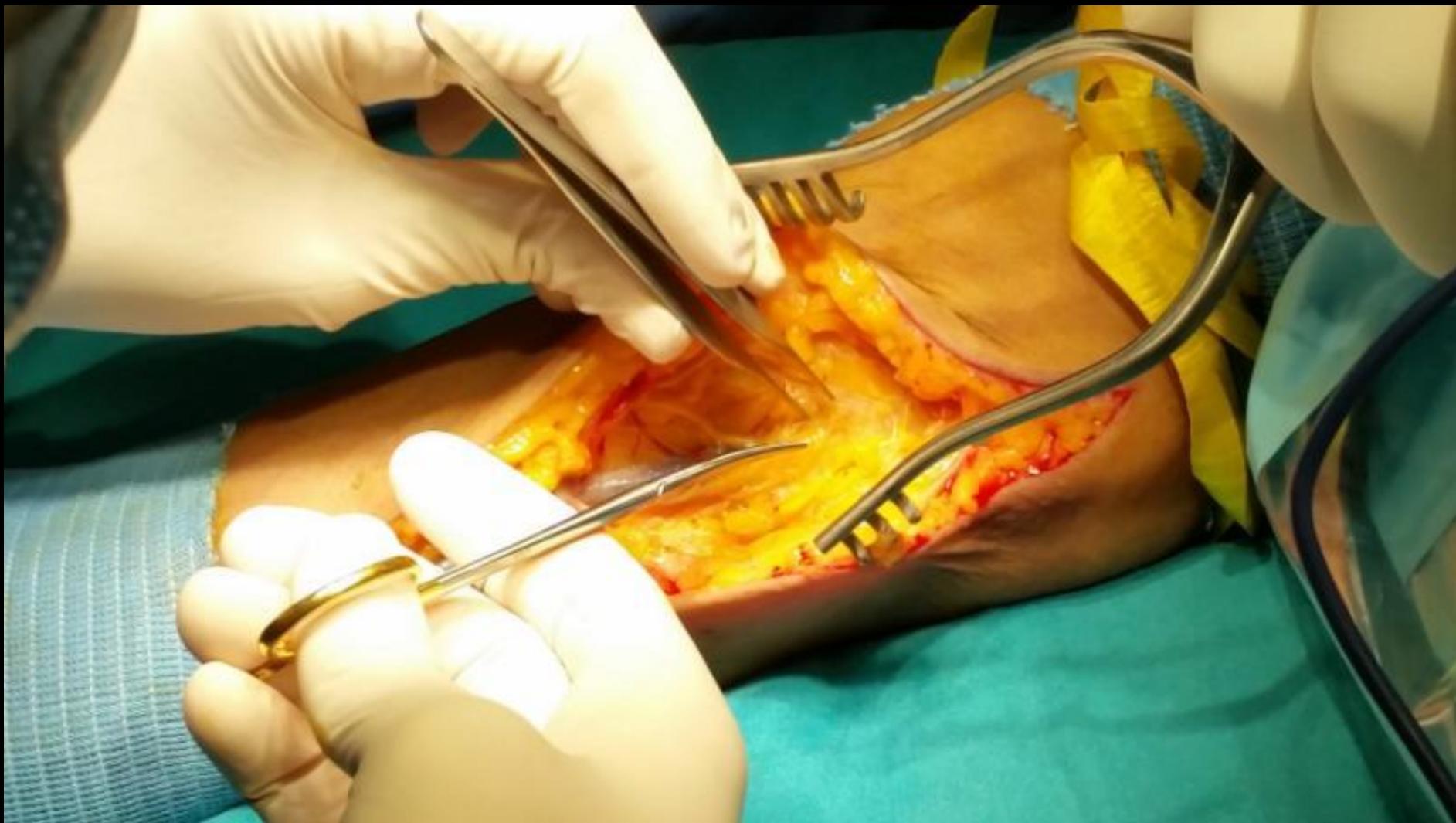




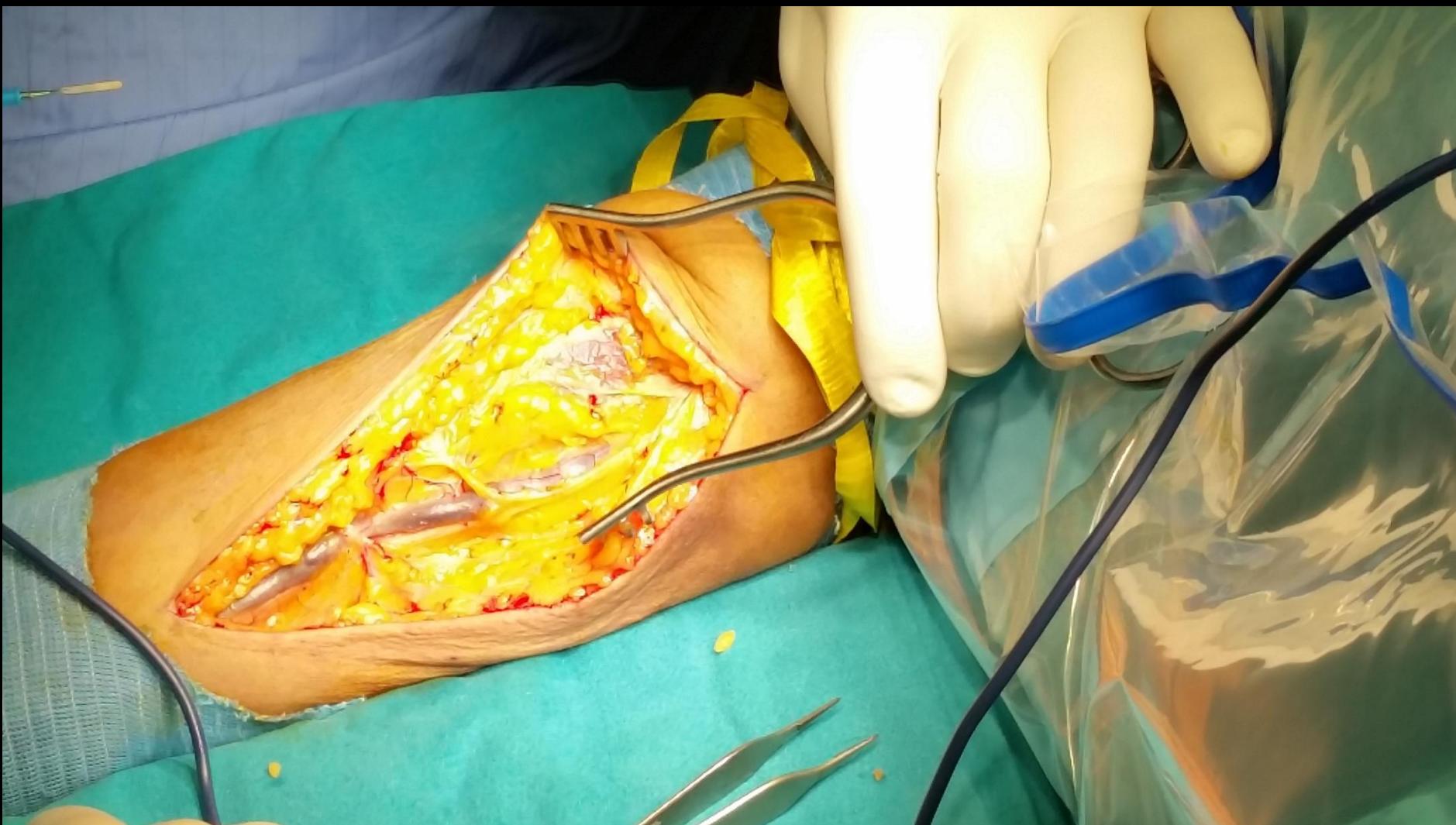
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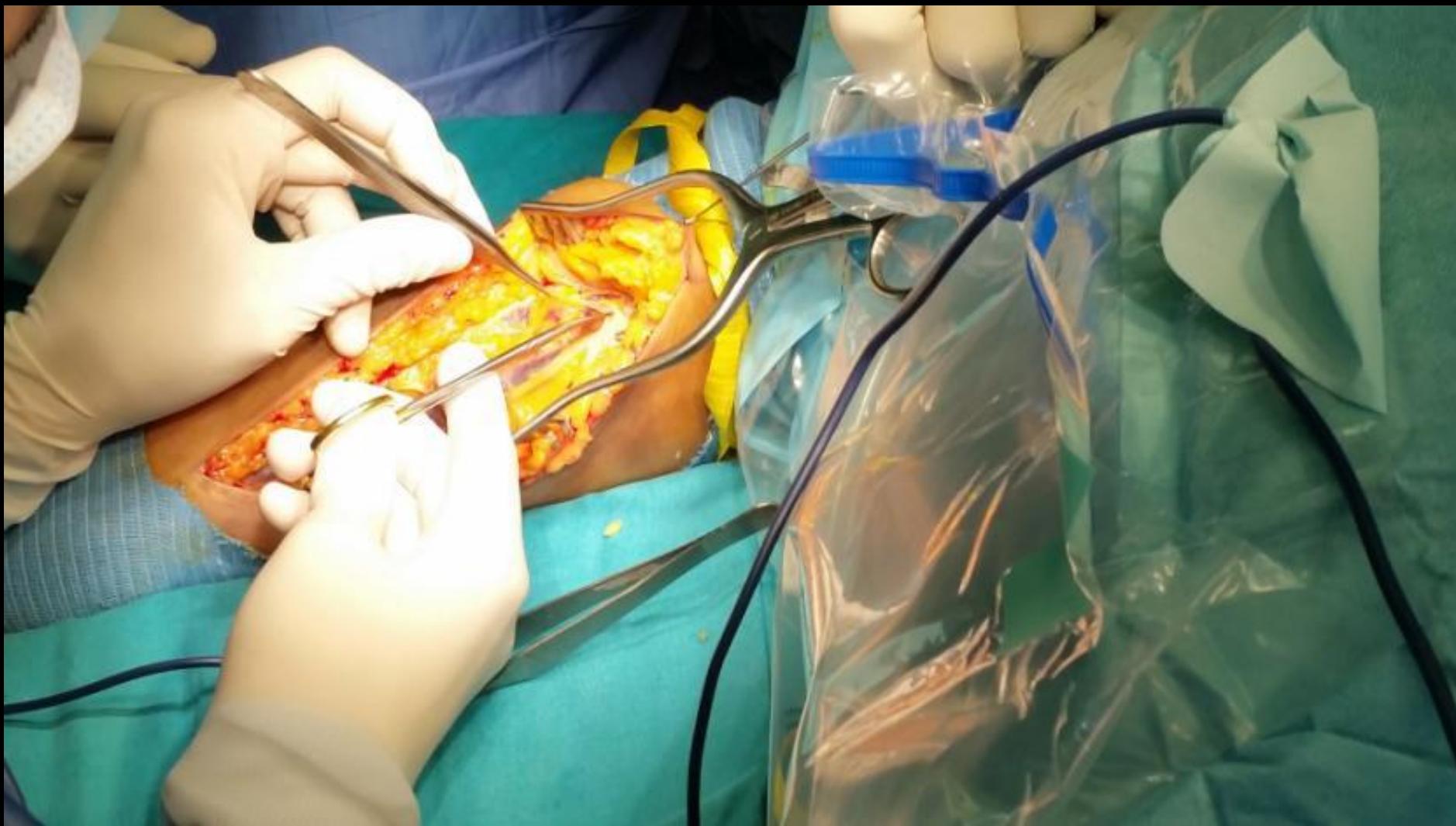




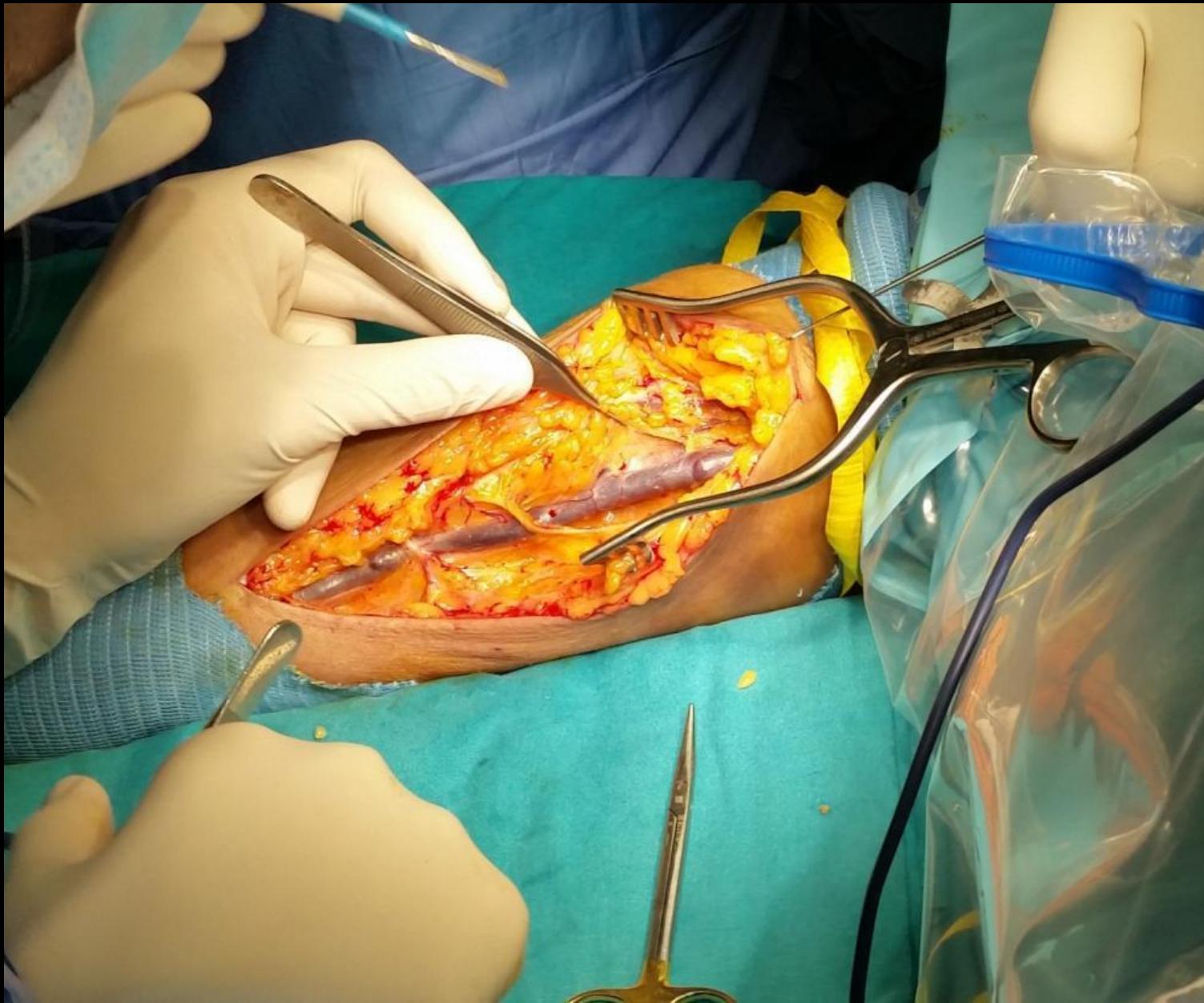


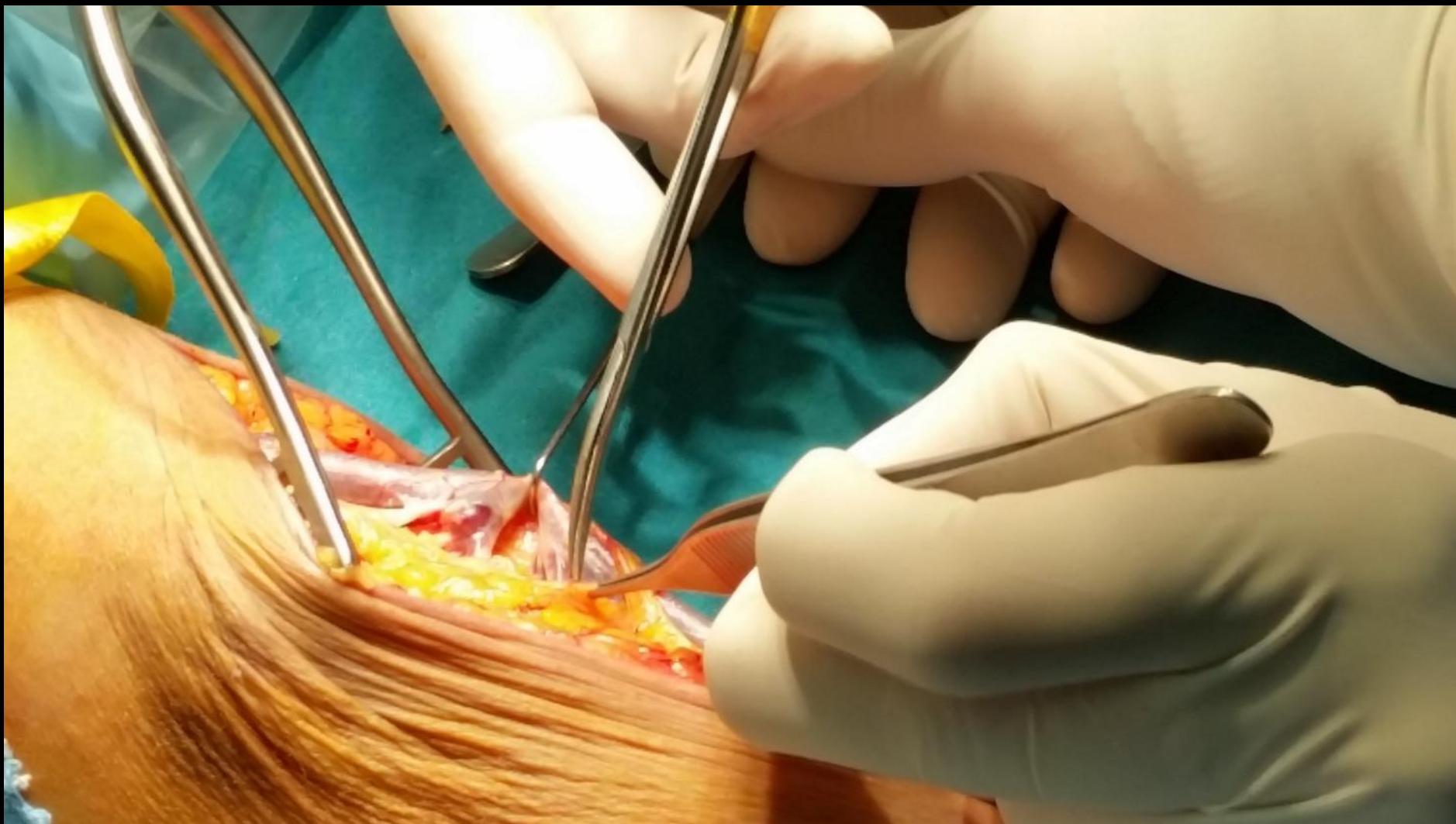
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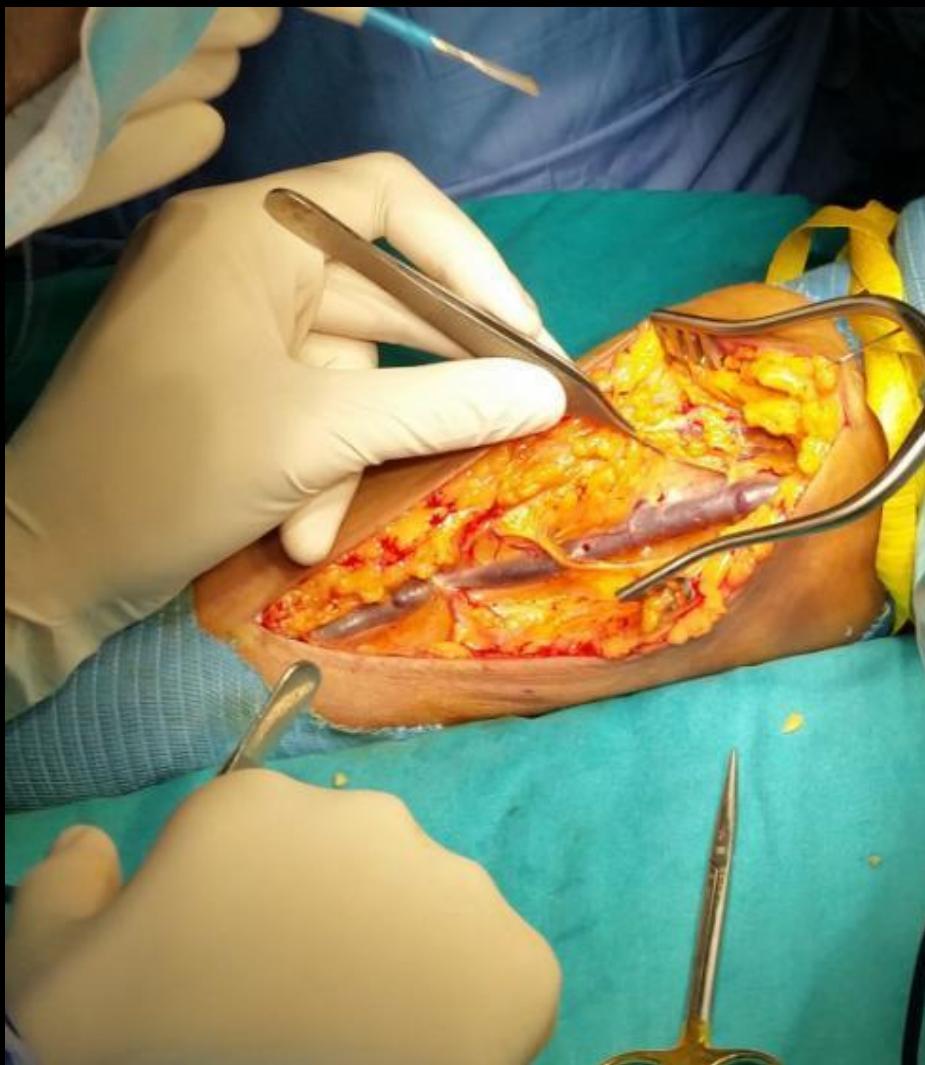


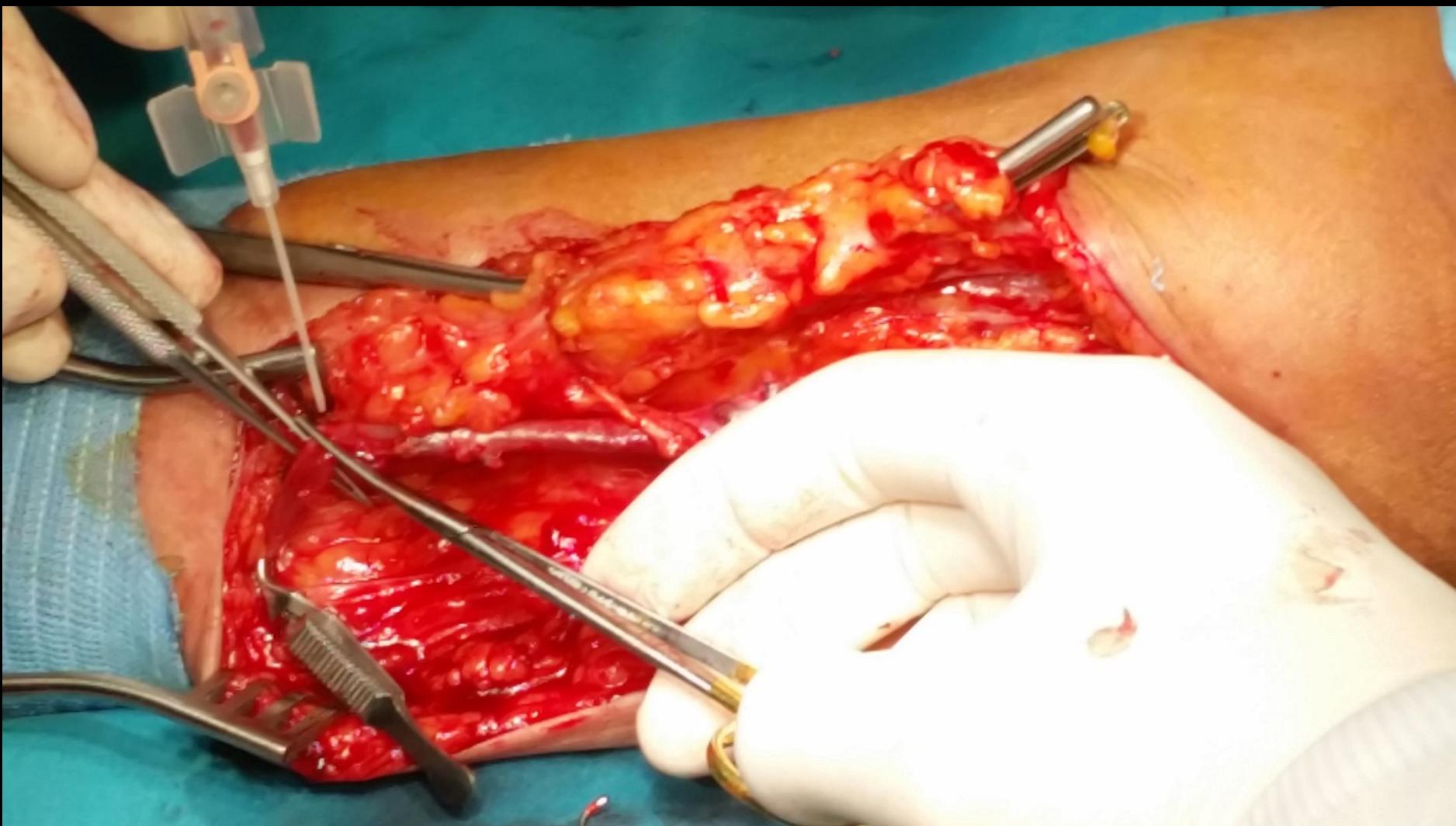
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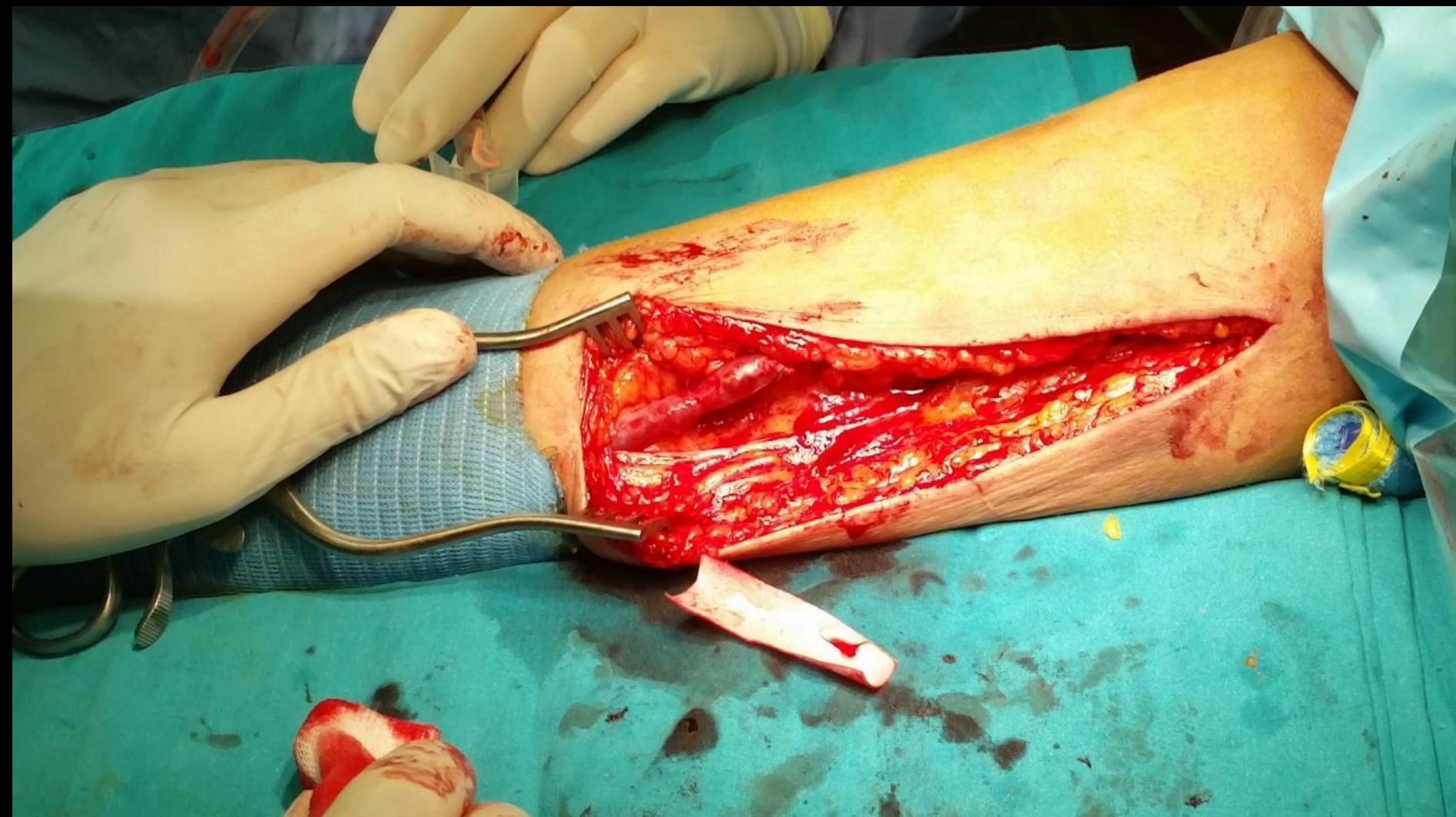
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## CONCLUSIONS

Preventive haemostasis is safe and effective for AVF surgery

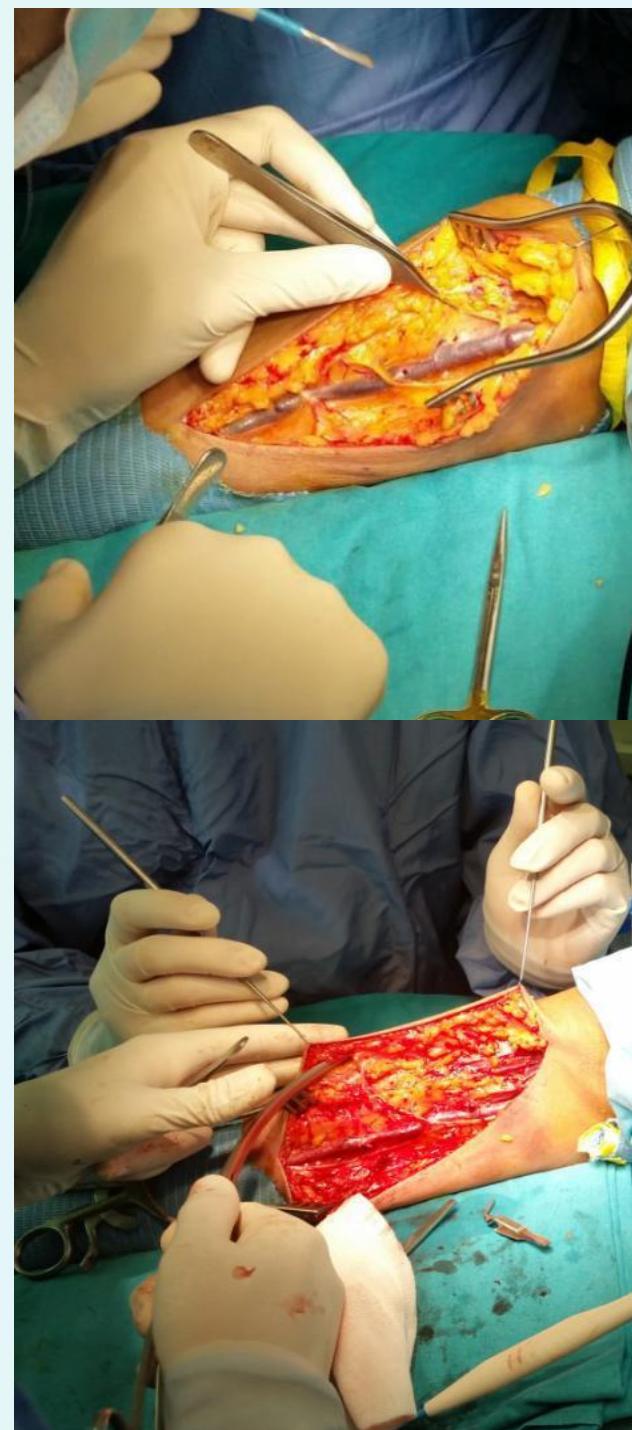
The new device (Hemaclear®) allow the use of this technique even for arm deep vein superficialisation surgery

Favorable personal experience

An extended use and collection of data would provide interesting evidence ([nicola.pirozzi@uniroma1.it](mailto:nicola.pirozzi@uniroma1.it))

## CONCLUSIONS#2

- Better operative field visualization
- Reduced operative time
- Sharpness of the procedure
- Reduced risk of bleeding and nerve injury





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# Merci beaucoup...

**Nicola Pirozzi**

*nicola.pirozzi@uniroma1.it*  
*www.nefrologiainterventistica.com*