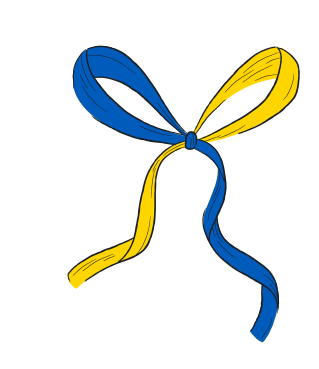


Due to the russian invasion of Ukraine and the russian-Ukrainian war, the presenting author Dmytro Beshley works as a military doctor in a mobile hospital in the zone of active hostilities. He asks to be excused for not being able to present. By holding the front line, Ukraine provides peace to Europe



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Arterial Debranching Through Upper Ministerotomy As A Stage Of Hybrid Treatment Of Subacute Type B Aortic Dissection

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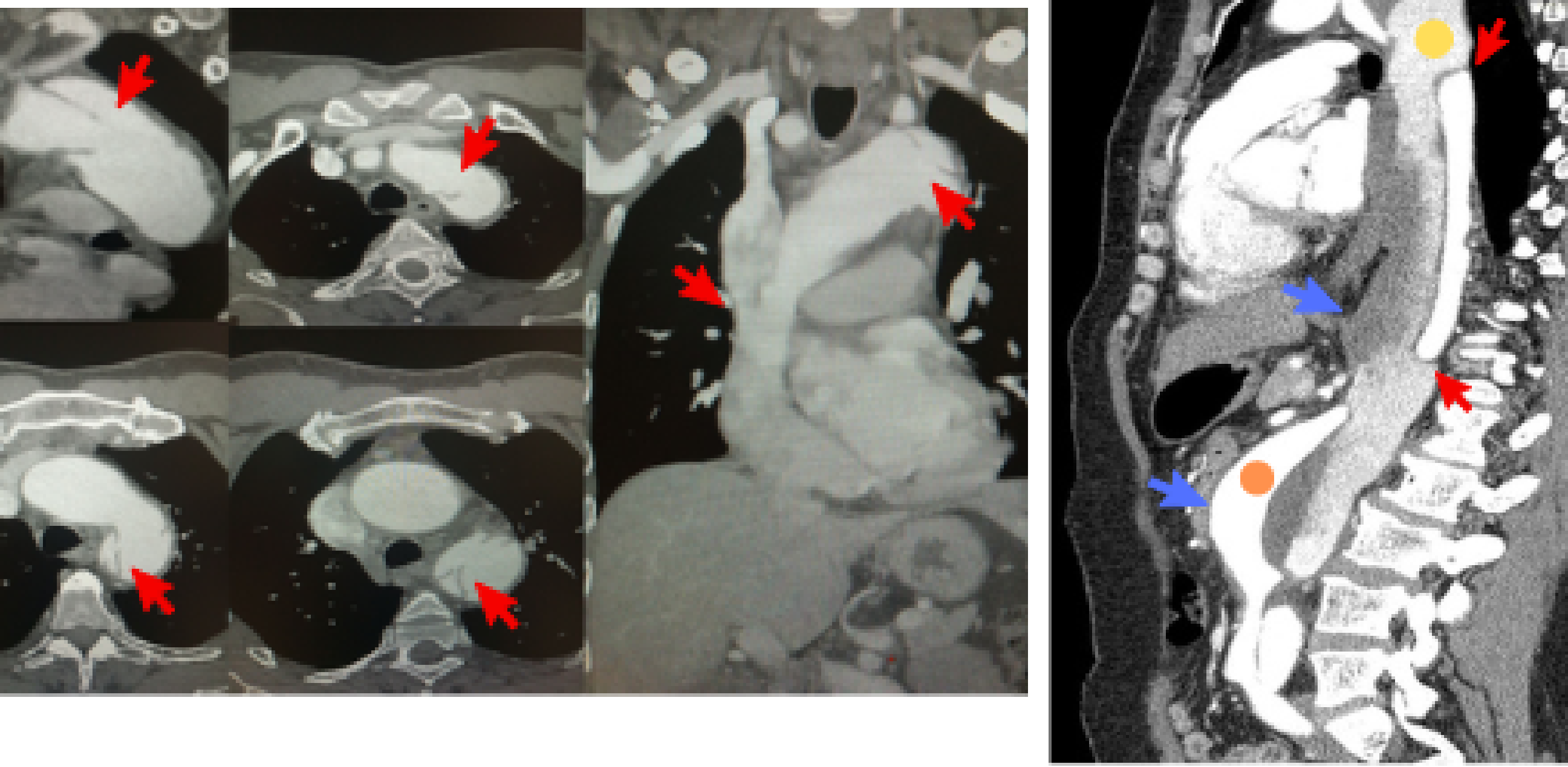
BACKGROUND:

- The gold standard for the treatment of patients with **type B aortic dissection** (Stanford), Type III De Bakey remains the **endovascular method** of endoprosthetic treatment of descending thoracic aorta.
- However, the optimal timing for this procedure, depending on the **time of dissection**, remains controversial to this day.
- One of the fundamental guarantees of good **long-term results** of the aortic endoprosthesis is the optimal choice of the **landing zone**.
- Minimally invasive hybrid methods of arterial debranching** are one of the methods of choice for the treatment of this pathology, especially in cases of the **complex anatomy** of the distal arch and the initial descending thoracic aorta, as well as retrograde dissection of the aortic arch.

METHODS:

We present to your attention consecutive cases of minimally invasive hybrid treatment of subacute **Type B Aortic Dissection (Stanford)**, **type III (De Bakey)** with the following features:

- retrograde dissection of the aortic arch to the projection of the landing zone Z1;
- the presence of intramural hematoma of the posterior wall of the aortic arch in the projections Z1 and Z2;
- severe atheromatosis of the distal aortic arch;
- the distance between the RCCA and LCCA orifices is less than 5 mm and the distance between the LCCA and LSA orifice is less than 10 mm;
- the joint divergence of the RCCA and LCCA orifices, the angle of descent of the descending thoracic aorta from the aortic arch is less than 60°.



ACKNOWLEDGMENTS:

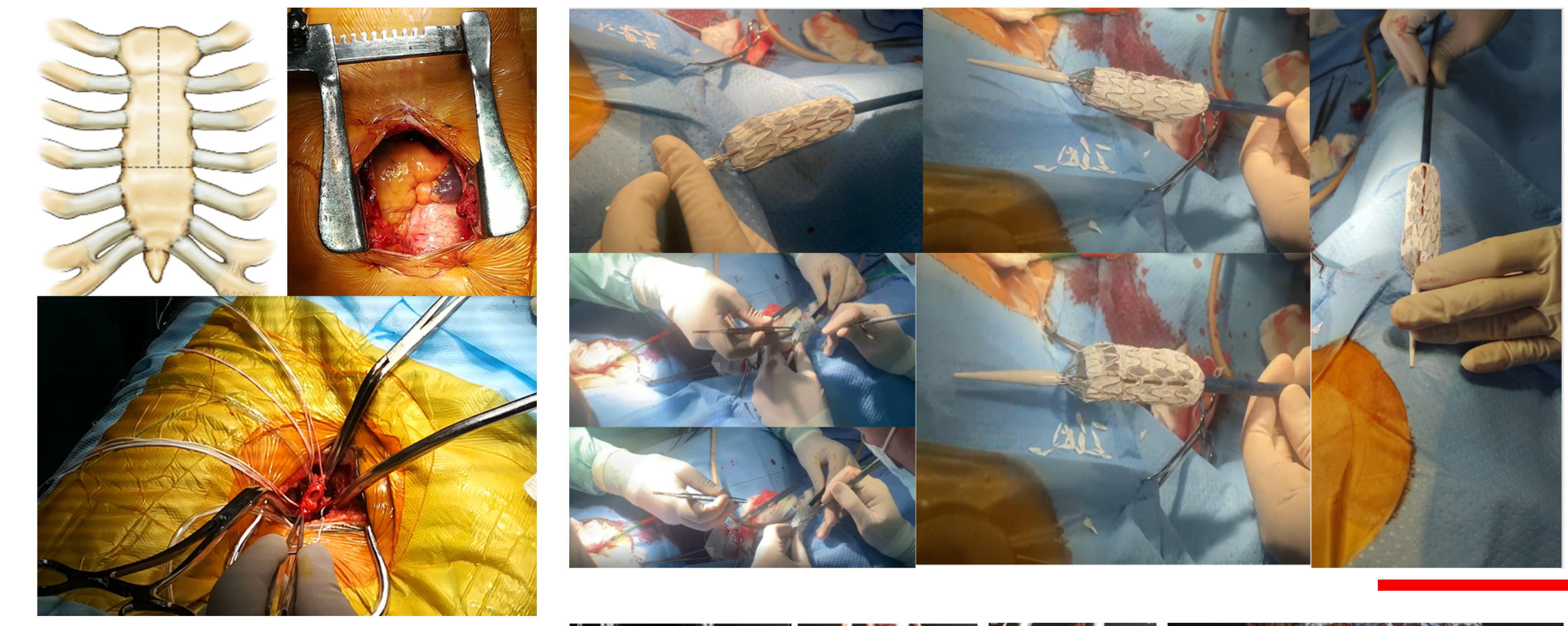
We would like to thank the **Armed Forces of Ukraine** for ensuring our security while we were preparing this poster

In all cases, patients were qualified for a one-time hybrid intervention in a hybrid operating room:

Miniinvasive surgical stage:

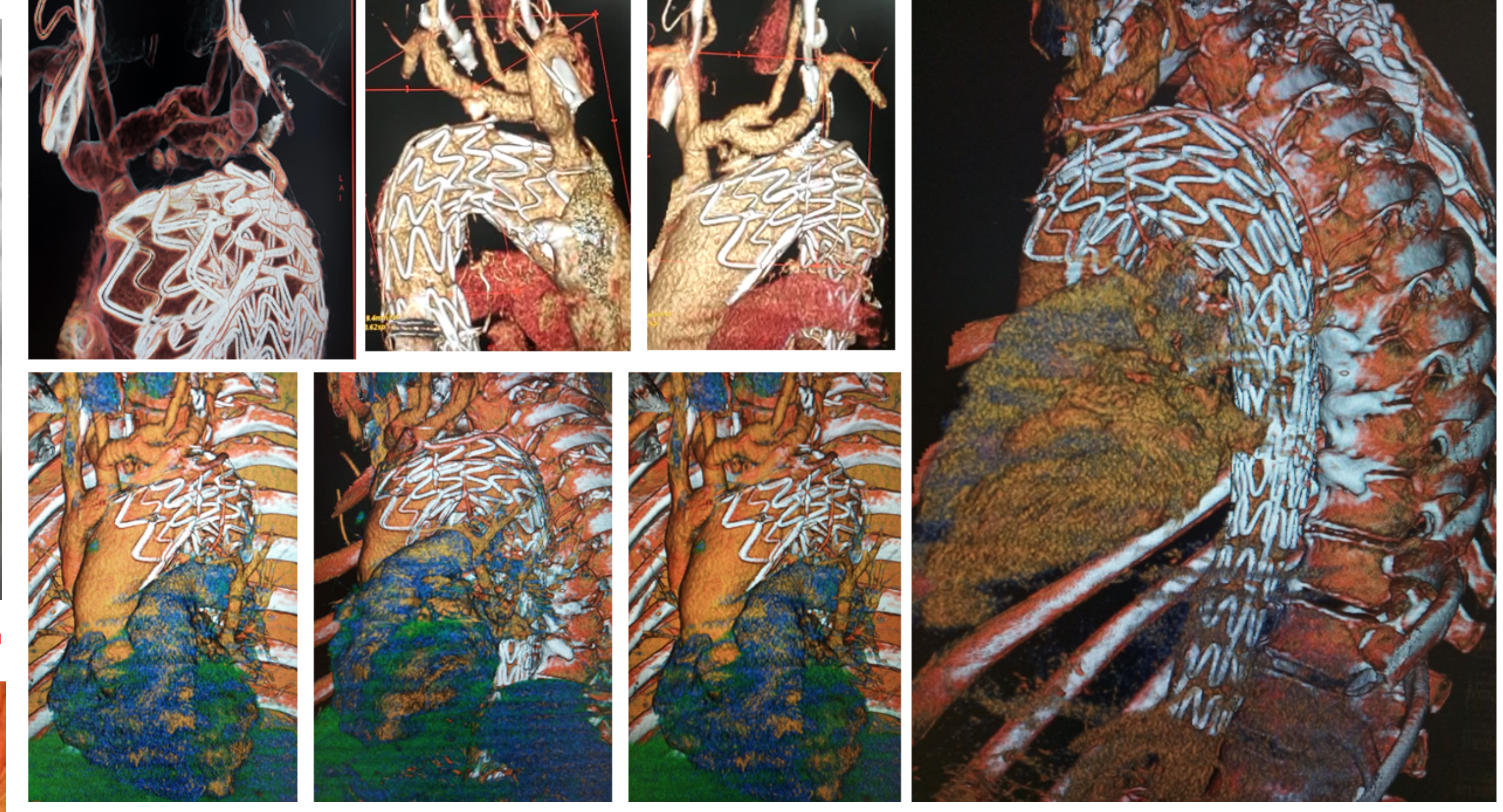
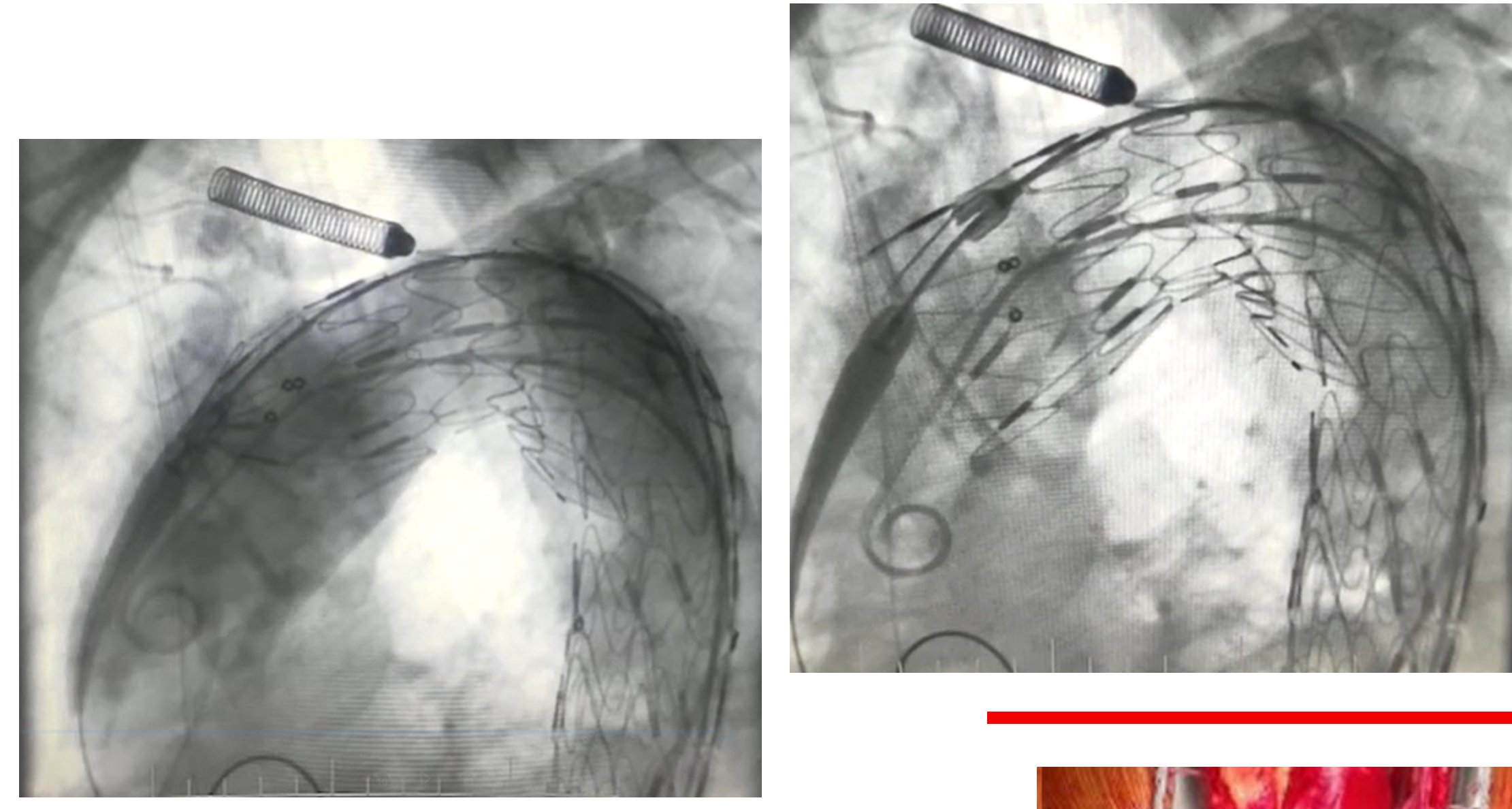
Full arterial debranching through an upper sternotomy and upper LCCA access

- Bypass from RCCA to LCCA, bypass from graft to LSA on the beating heart.**
The clamping time of each main vessel was less than 10 minutes.
- All patients underwent complete arterial debranching minimally invasively. **Upper median I-shaped ministernotomy** to the IV intercostal space. Separate supraclavicular access to the proximal segment of the LSA.
In the conditions of a beating heart, the orifices of the branches of the aortic arch were mobilized and anastomoses were applied alternately.
- Bypass from RCCA to LCCA "site to end"** (Vascutec 10 mm), with ligation of the proximal LCCA segment.
- Bypass from graft to LSA "site to site"** (Vascutec 8 mm) with ligation of proximal LSA segment more proximal from a. thoracica interna orifice



Endovascular Stage

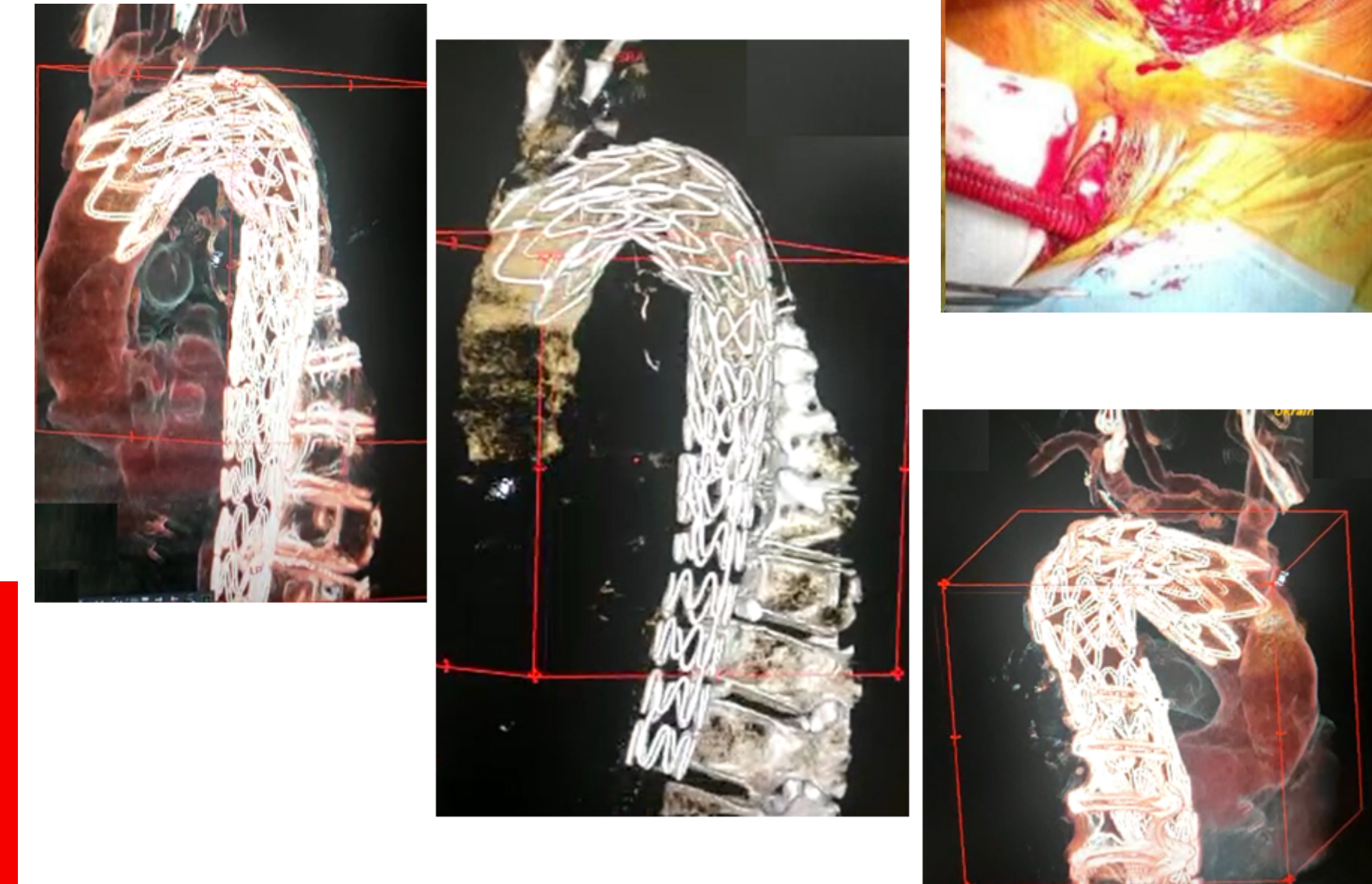
- After adequate surgical hemostasis, the patients underwent arch and descending thoracic aortic prosthetics through the femoral accesses with two endoprostheses, with surgical fenestration of the proximal endoprosthesis for the RCCA orifice.



RESULTS:



- All patients withstood surgery satisfactorily.**
- In the early postoperative period, **two** patients had **transient neurological disorders**. During the first 24 hours, all neurological symptoms regressed.
- No malperfusions** of the spinal cord, abdominal organs and no ischemic complications from the vessels of the lower extremities were observed.
- All patients spent **less than 36 hours in the ICU.**
- Patients were **discharged** from the hospital on average on the **8th day** after hybrid intervention in satisfactory condition.
- Midterm results (6 months):** **One** patient (88 years old) **died** suddenly in sleep against the background of severe negativity, probably a stroke?



- All other patients **feel well**; they walk independently, hemodynamics is stable, and no neurological symptoms are observed.

CONCLUSIONS:

Arterial debranching through the ministernotomy on a beating heart is a safe procedure with **good visualization** of the branches of the aortic arch and can be used as a **stage of hybrid treatment** in **endovascular treatment of the arch and descending thoracic aorta.**

