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# WILKIE'S SYNDROME

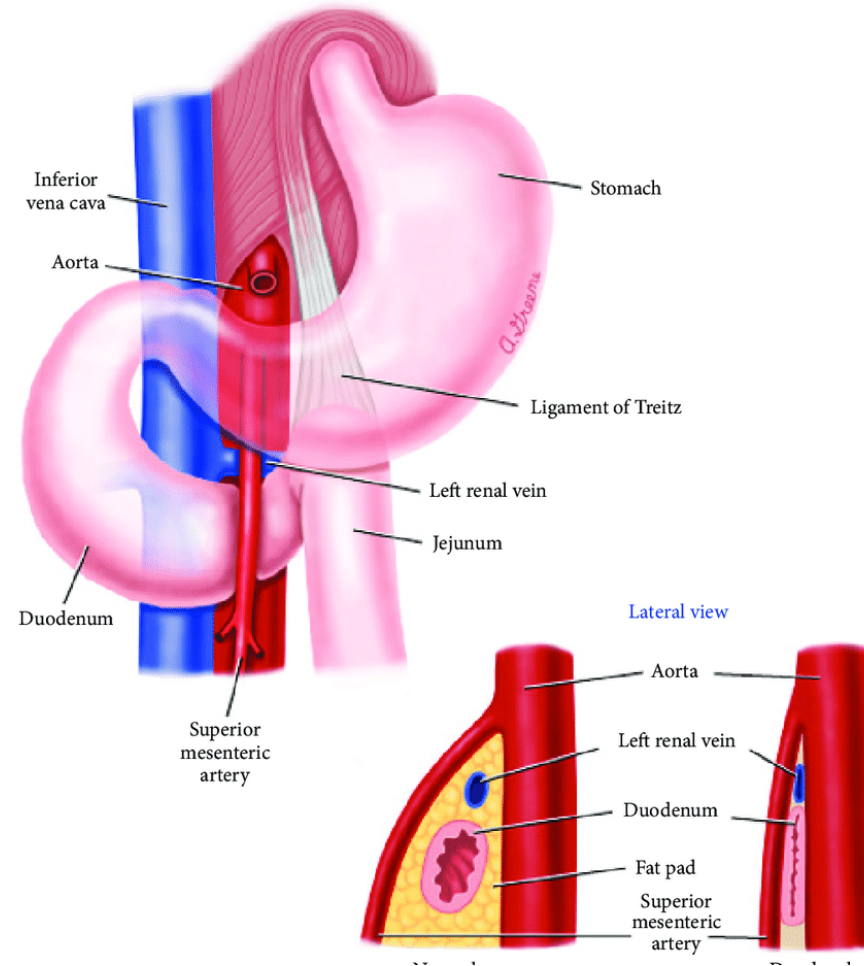
## VASCULAR SURGICAL APPROACH

# DEFINITION

- **Abdominal Aorta –AMS**  
Angulation < 25 degree
- **3<sup>rd</sup> part of duodenum**  
Compression-Obstruction

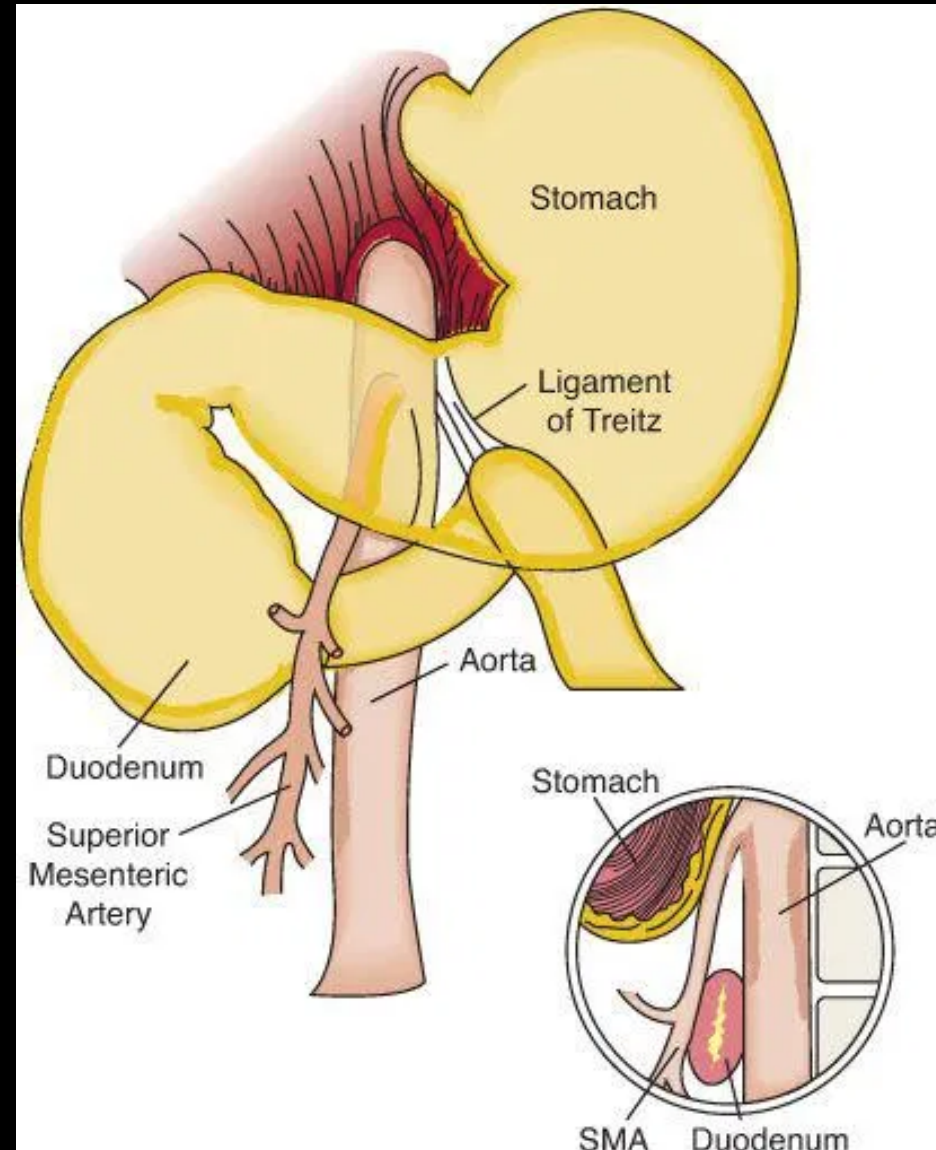
Nausea - pain - vomit

Weight loss – satiety -  
anorexia



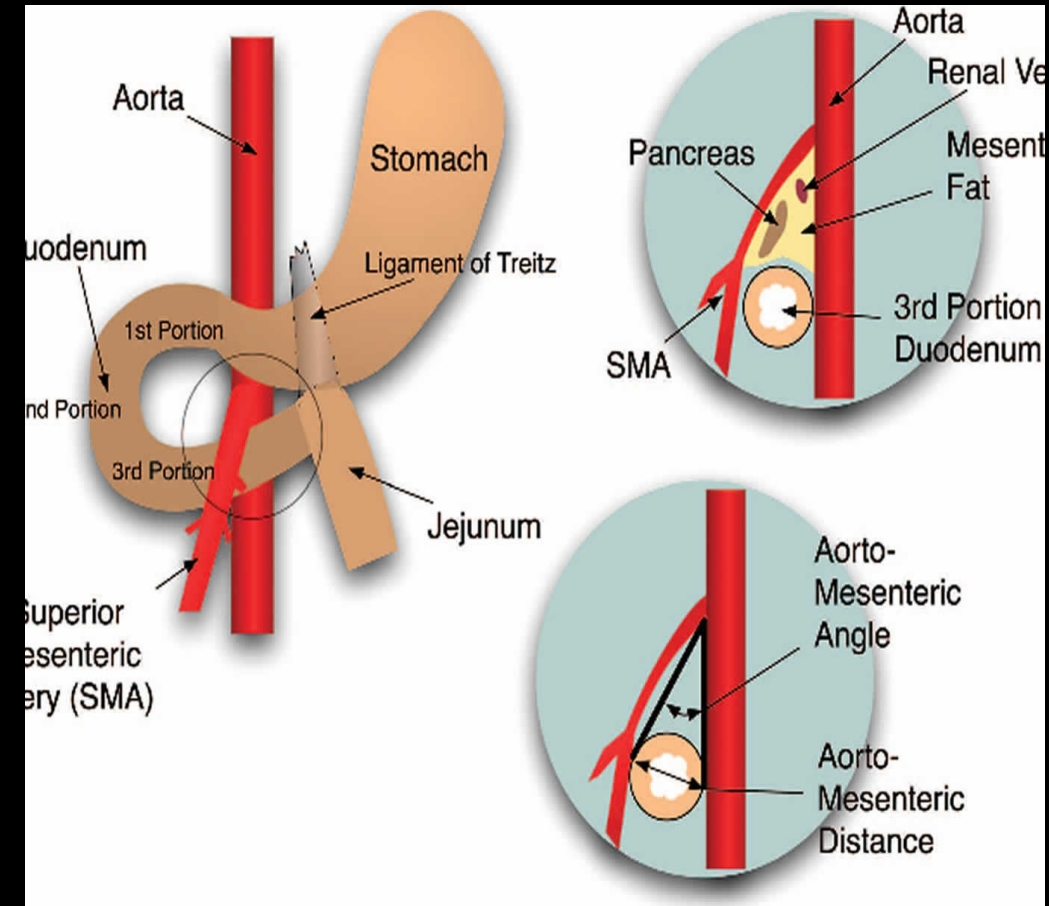
# EPIDEMIOLOGY

0.01% to 0.3%.  
Female > Male  
10-39 y.o.



# RISK FACTORS

- Significant weight loss
- A short Treitz ligament
- Abnormal origin of SMA
- Surgical correction of scoliosis or esophagectomy





# HISTORY

- **1842** : 1st described by Austrian Professor  
**Carl Von Rokitanski**
- **1927** : **sir David WILKIE** published 75 study cases .(DJ)

# DIAGNOSIS

- GI radiography

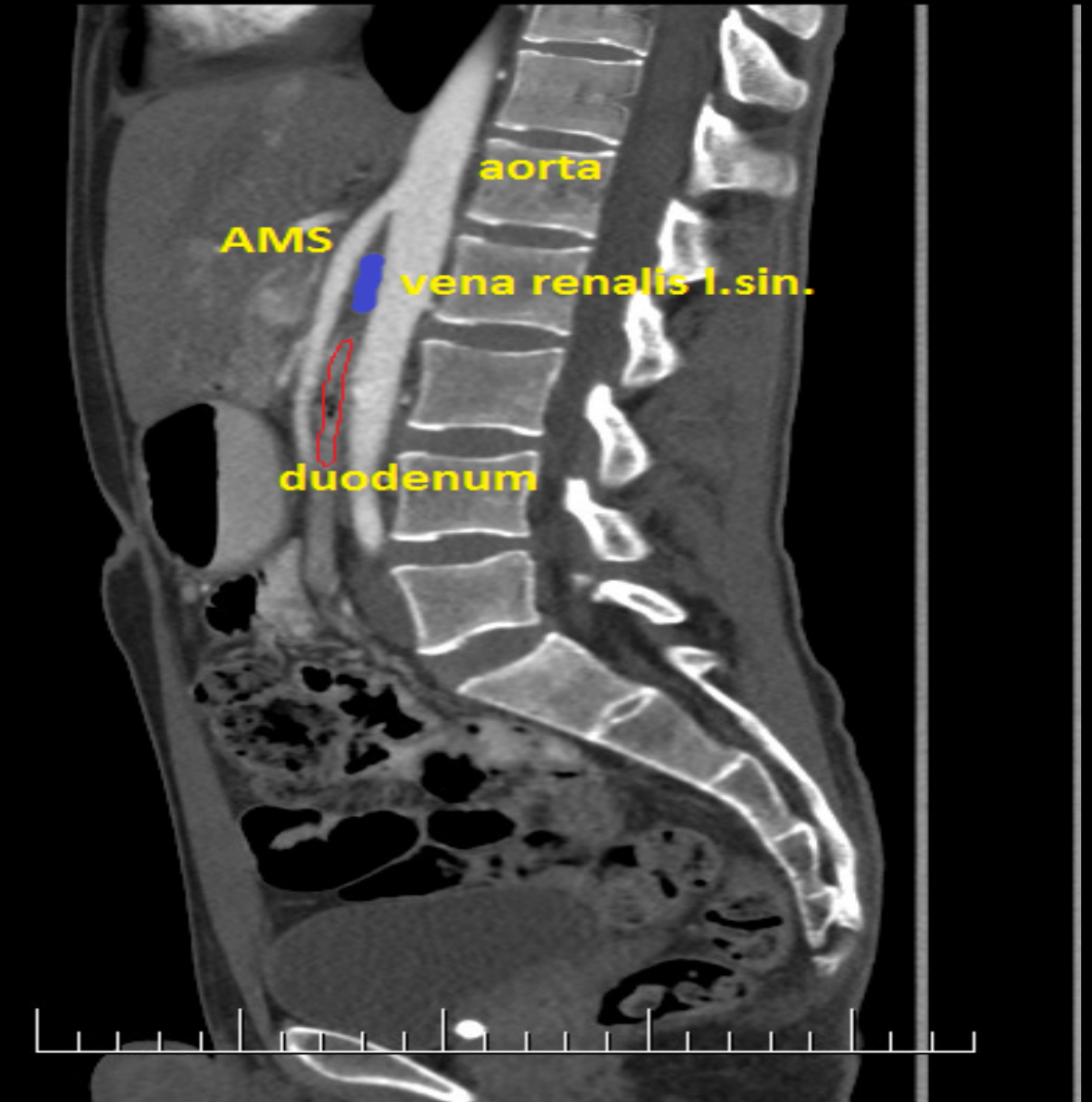
- Dilated stomach and duodenum
- D3 abrupt cut-off or narrowing

- CTAG

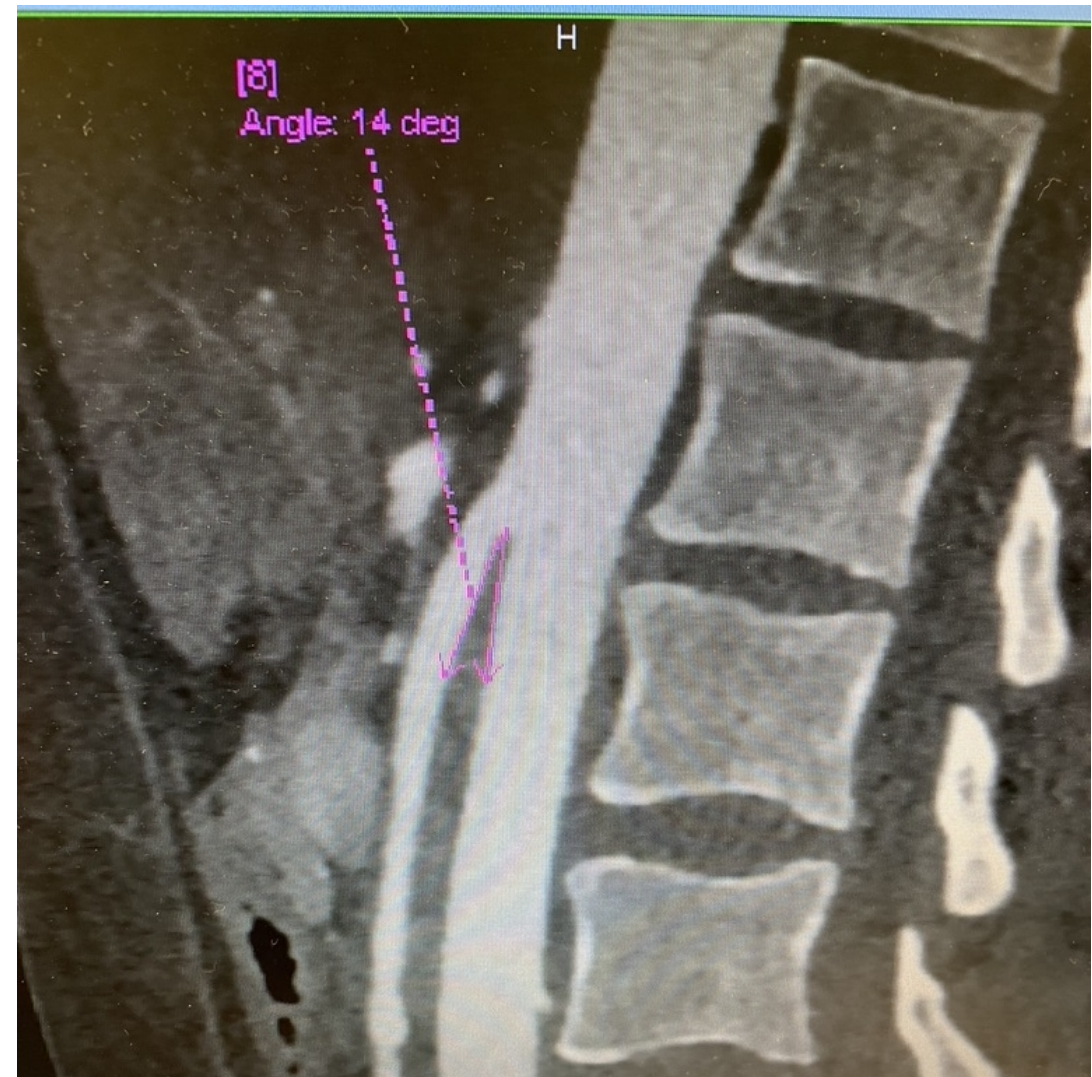
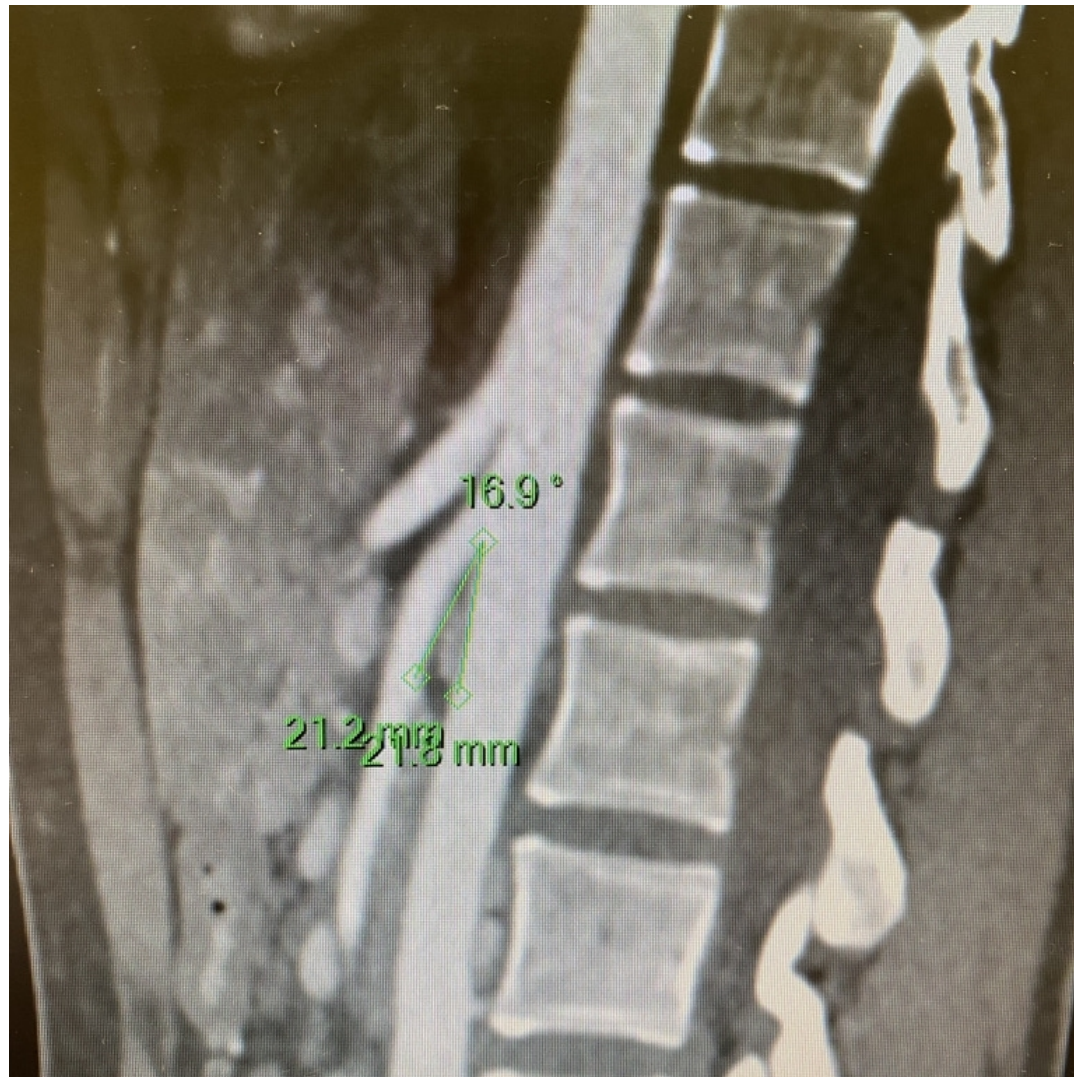
---> Sagittal view

Ao-AMS angulation < 25° ,

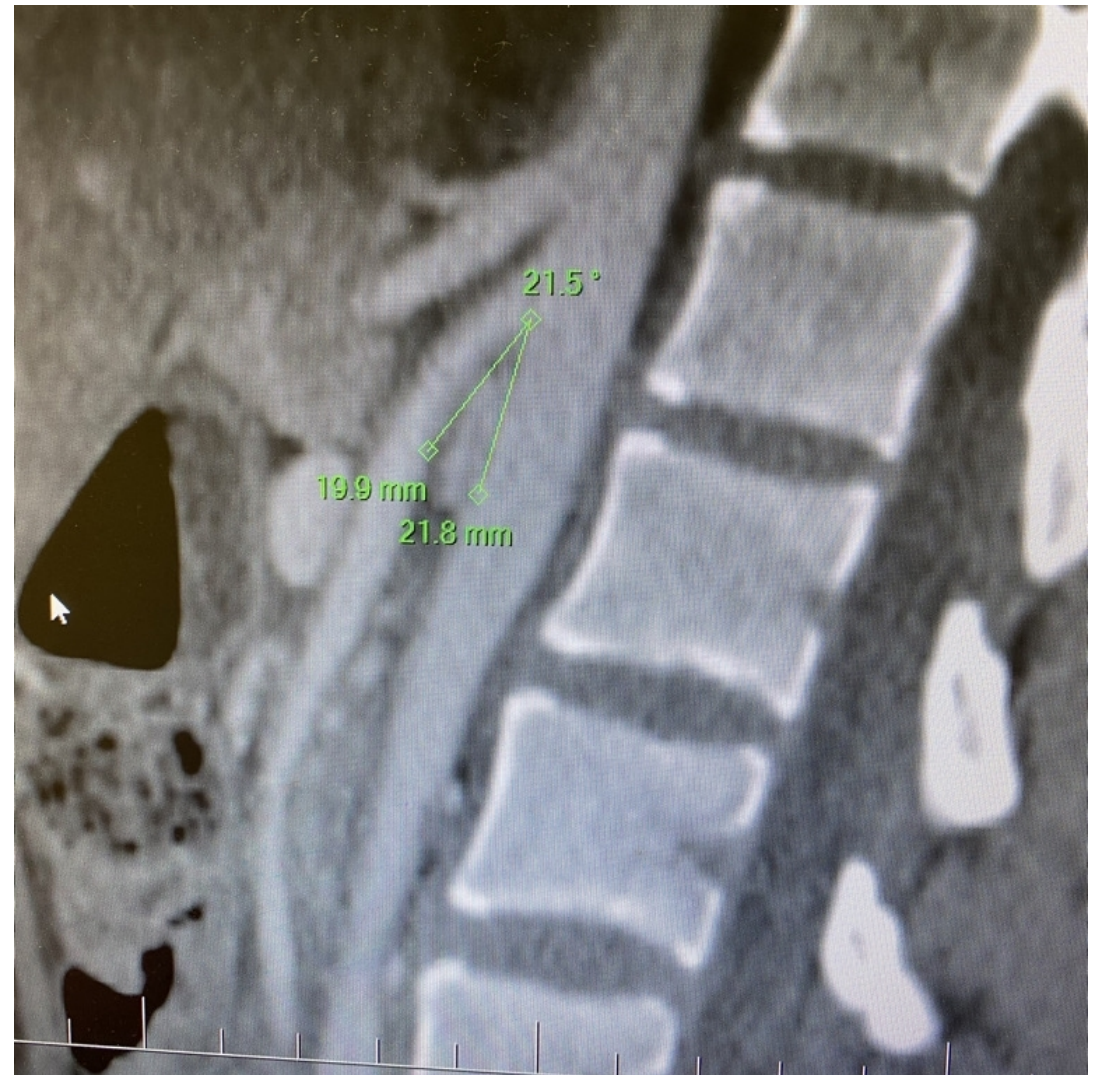
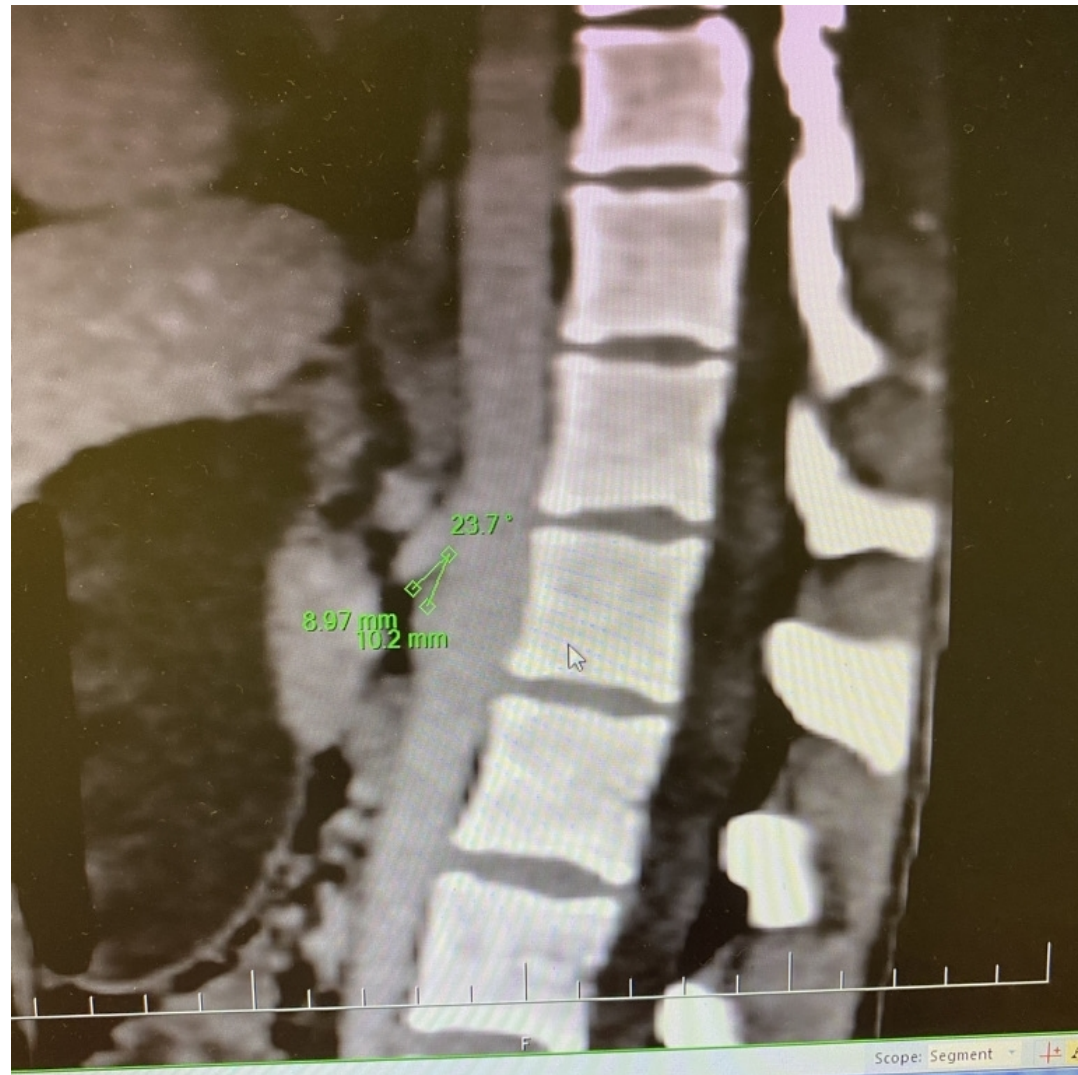
→ AA-SMA Distance < 8 mm













MR/1201/16  
Coronal  
T2W\_TSE\_Cor\_BH  
ABDOMENPELVIS

H

Dr.MAGNET KRAMARE BA  
ILUSAK^Lukas  
9205256335  
25. 5. 1992  
22Y M  
323008  
13. 6. 2014  
10:51:48

R

L

ET: 62  
TR: 848.5  
TE: 80.0  
Pixel size: 0.833 mm  
Position: -19.0 mm  
W: 3309 L: 1769

F

DFOV: 40.00 x 40.00cm

Atonic hooked stomach

MR/401/11  
Coronal  
T2W\_SPAIR 3 mm  
ABDOMENPELVIS

H

Dr.MAGNET KRAMARE BA  
ILUSAK^Lukas  
9205256335  
25. 5. 1992  
22Y M  
323008  
13. 6. 2014  
10:51:48

R

L

ET: 76  
TR: 1250.0  
TE: 70.0  
Pixel size: 0.781 mm  
Position: 1.0 mm  
W: 6983 L: 3191

F

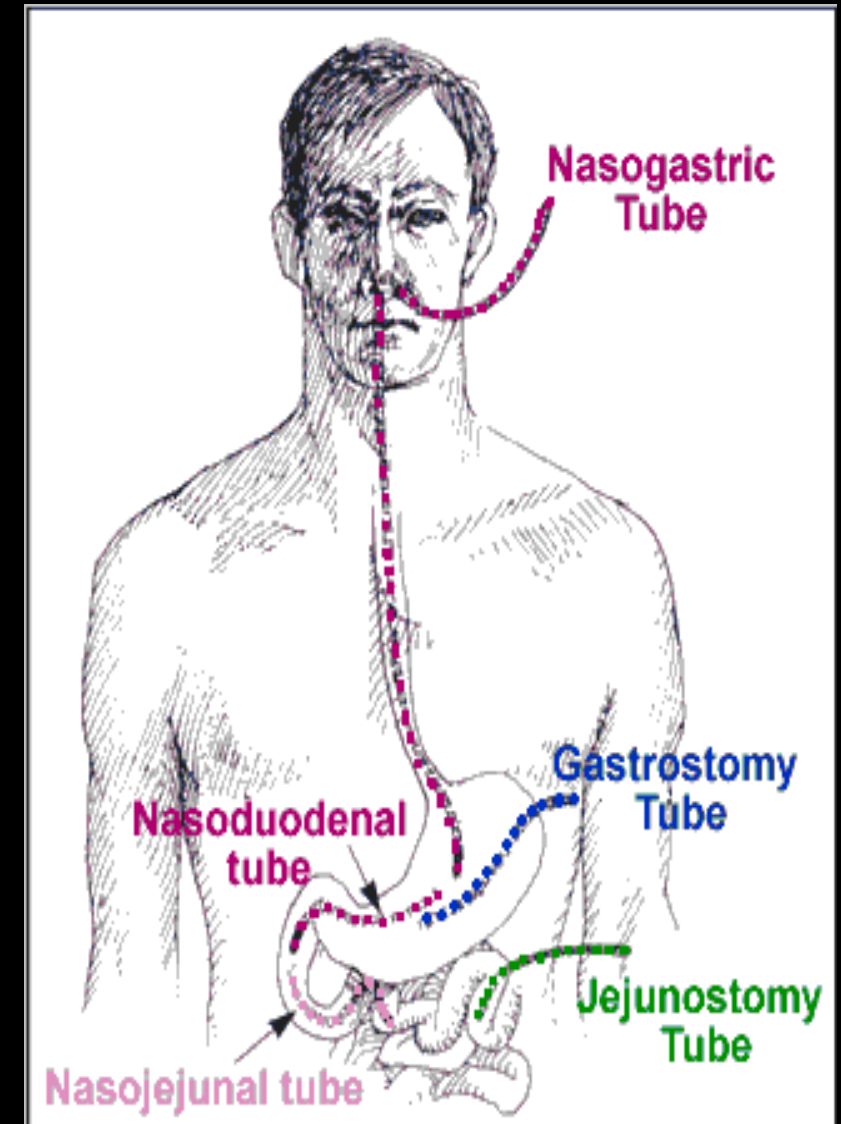
DFOV: 40.00 x 40.00cm

Dilated duodenum

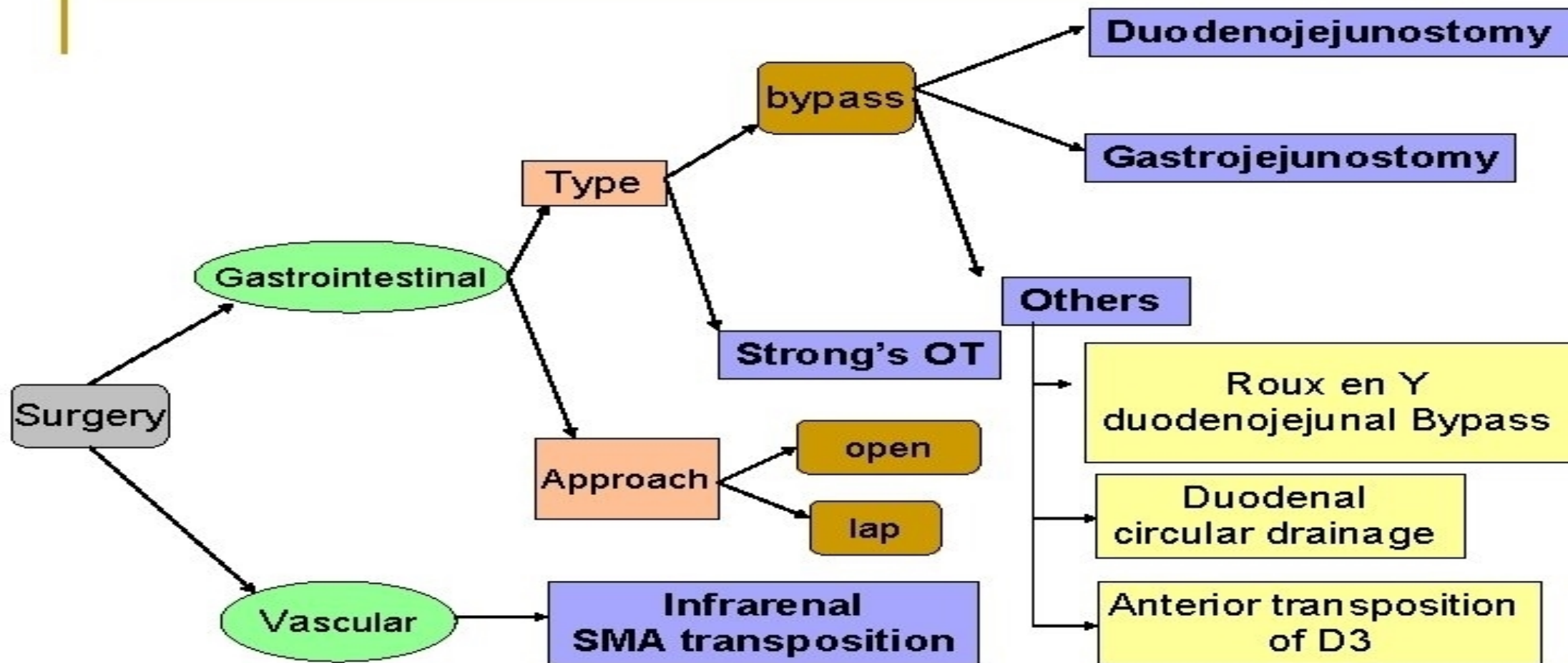
# MANAGEMENT

- Conservative therapy:

- -Gastroduodenal decompression,
- -Correction of fluid and electrolyte
- -Nutritional support by :
  - high caloric enteral N. via feeding tube
  - parenteral N.



# SURGERY



-1995 : 1st laparoscopic treatment  
performed by **Dr.Massoud**

 dividing the ligament of Treitz

-1908 : 1st operative treatment by **Stavelly**. (DJA)

-1998 : 1st laparoscopic DJA  
performed by **Dr.Gersin** and **Dr.Heniford**



# GI BYPASSES

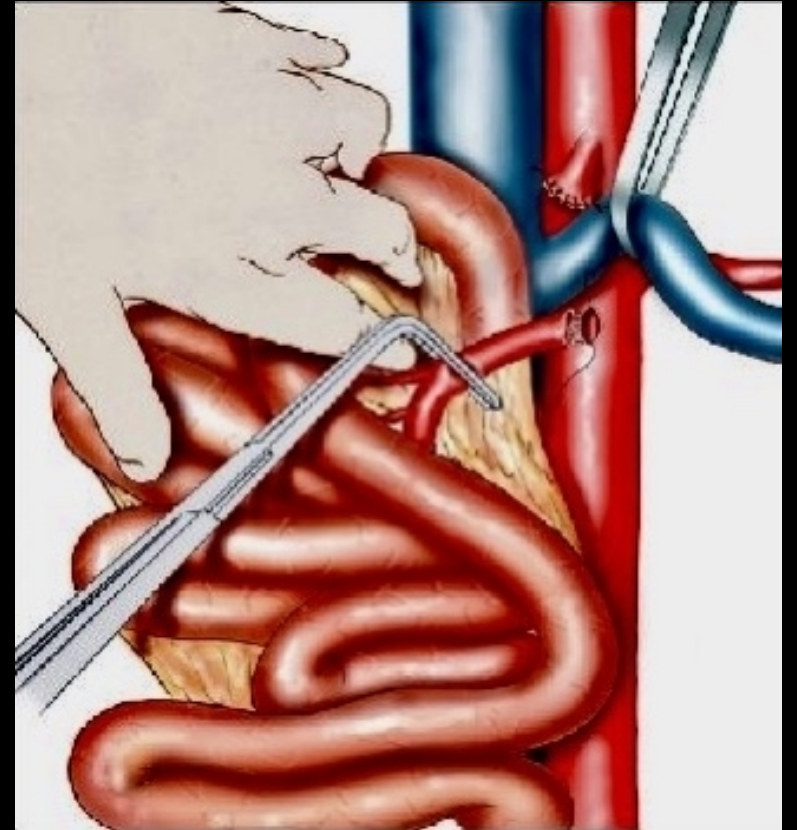
## • Complications

- -Anastomotic or staple line *leak*,
- -Postoperative *hemorrhage*,
- -Bowel *obstruction* and incorrect Roux limb reconstructions.
- -*Dumping syndrome*, (diarrhea, nausea or vomiting)
- -Anastomotic *stricture*,
- -Marginal *ulceration* and *perforation*,
- -*Fistula* formation and nutritional *deficiencies*

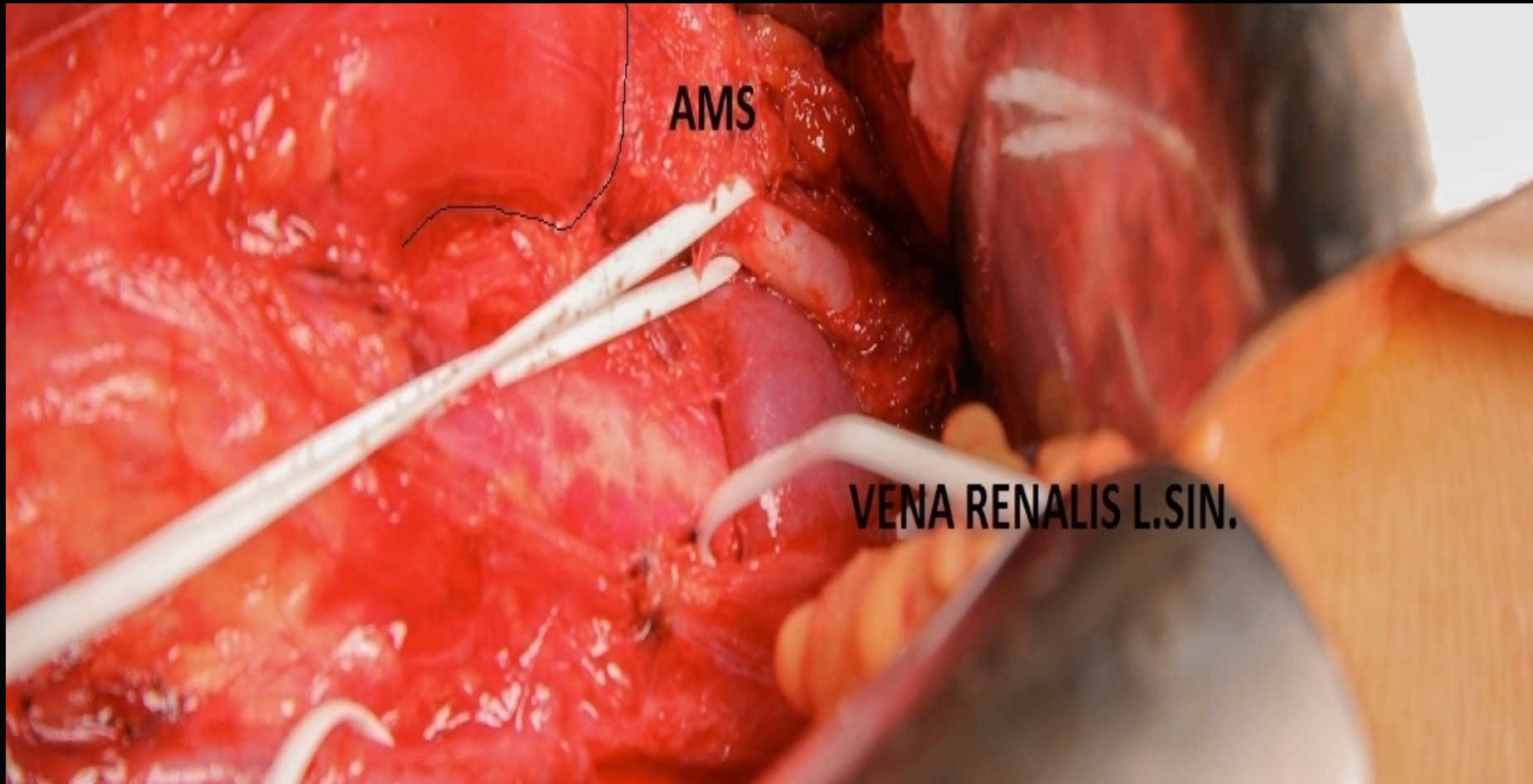
# VASCULAR SURGICAL APPROACH

## *Transposition of SMA to infrarenal part of the aorta*

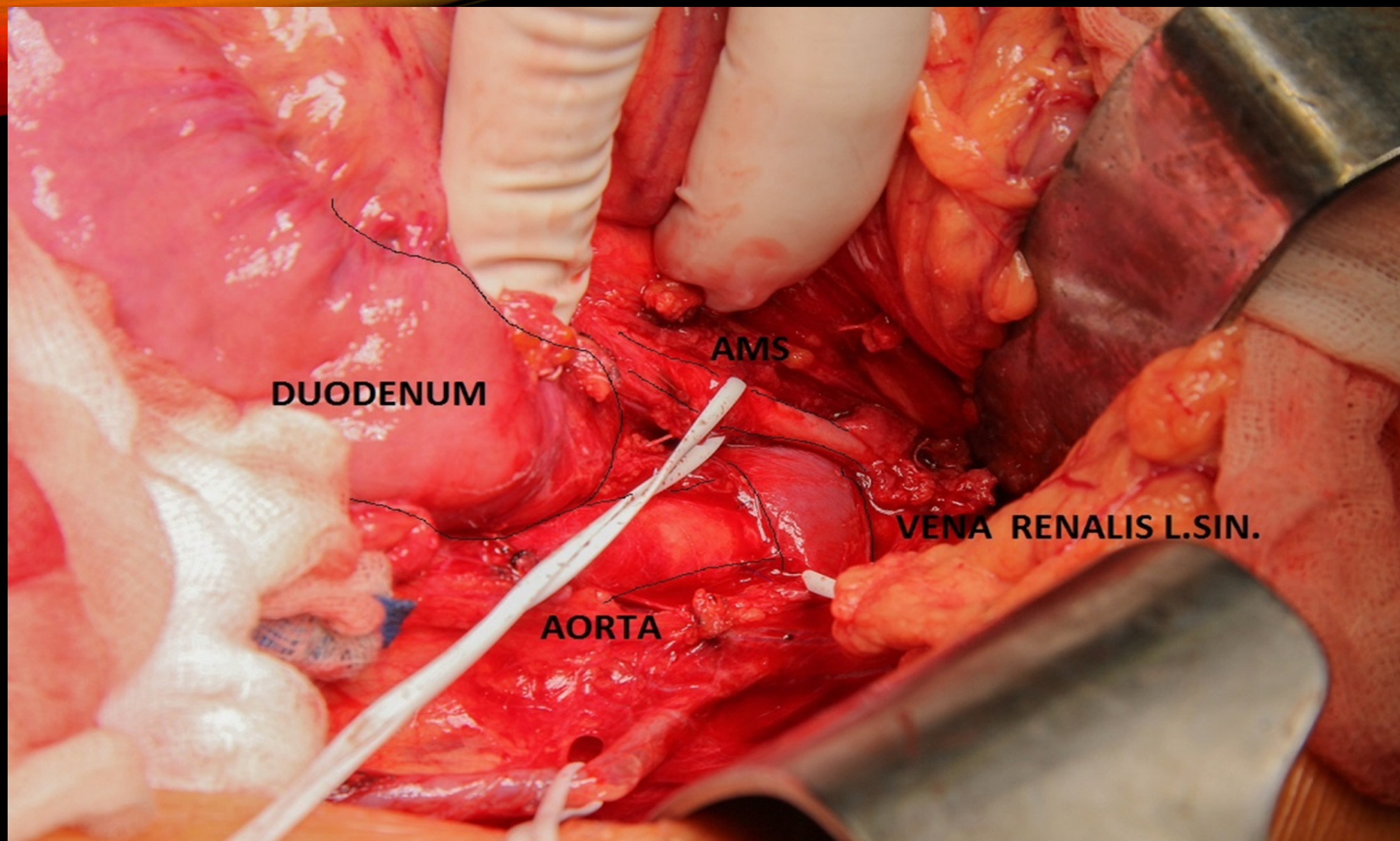
- 2007 1st AMS transposition to infrarenal part of AA performed in U.H. Düsseldorf, Germany
- 2012 1st AMS transposition to infrarenal part of AA  
Performed by **Dr.Tomka** (Bratislava - Slovakia)



## DUODENAL MOBILIZATION - TREITZII LIGAMENT (CRURA DUODENI)







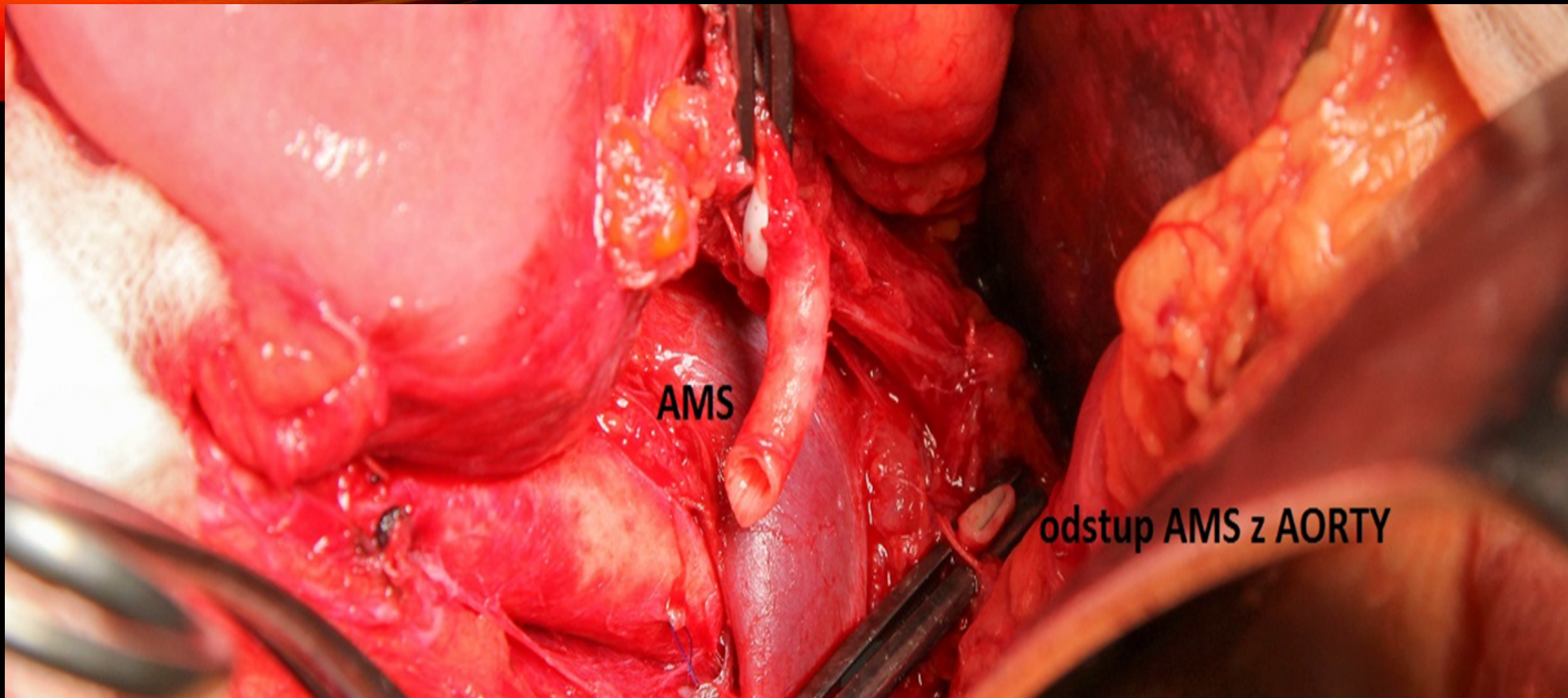
**DUODENUM**

**AMS**

**AORTA**

**VENA RENALIS L.SIN.**

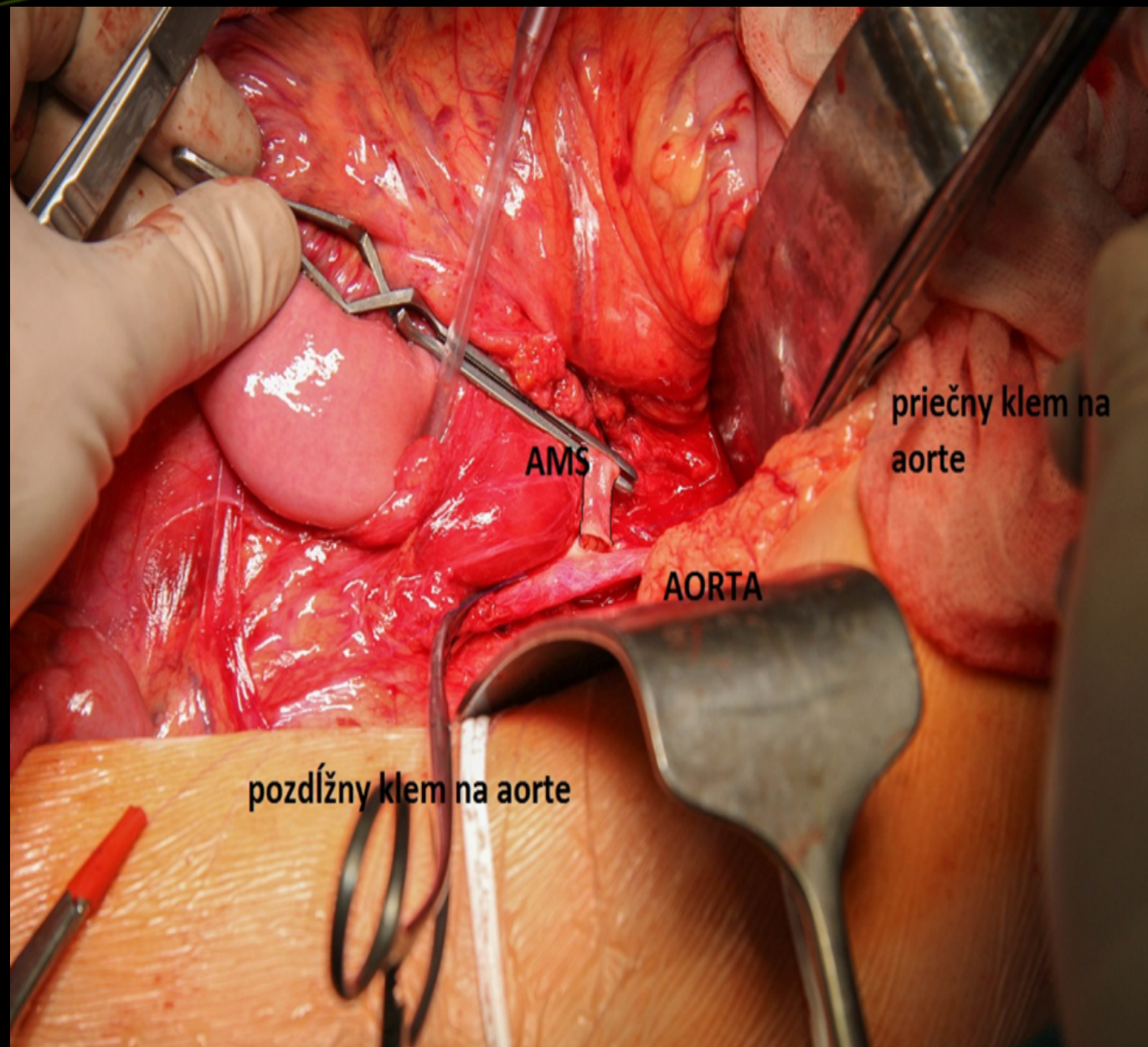




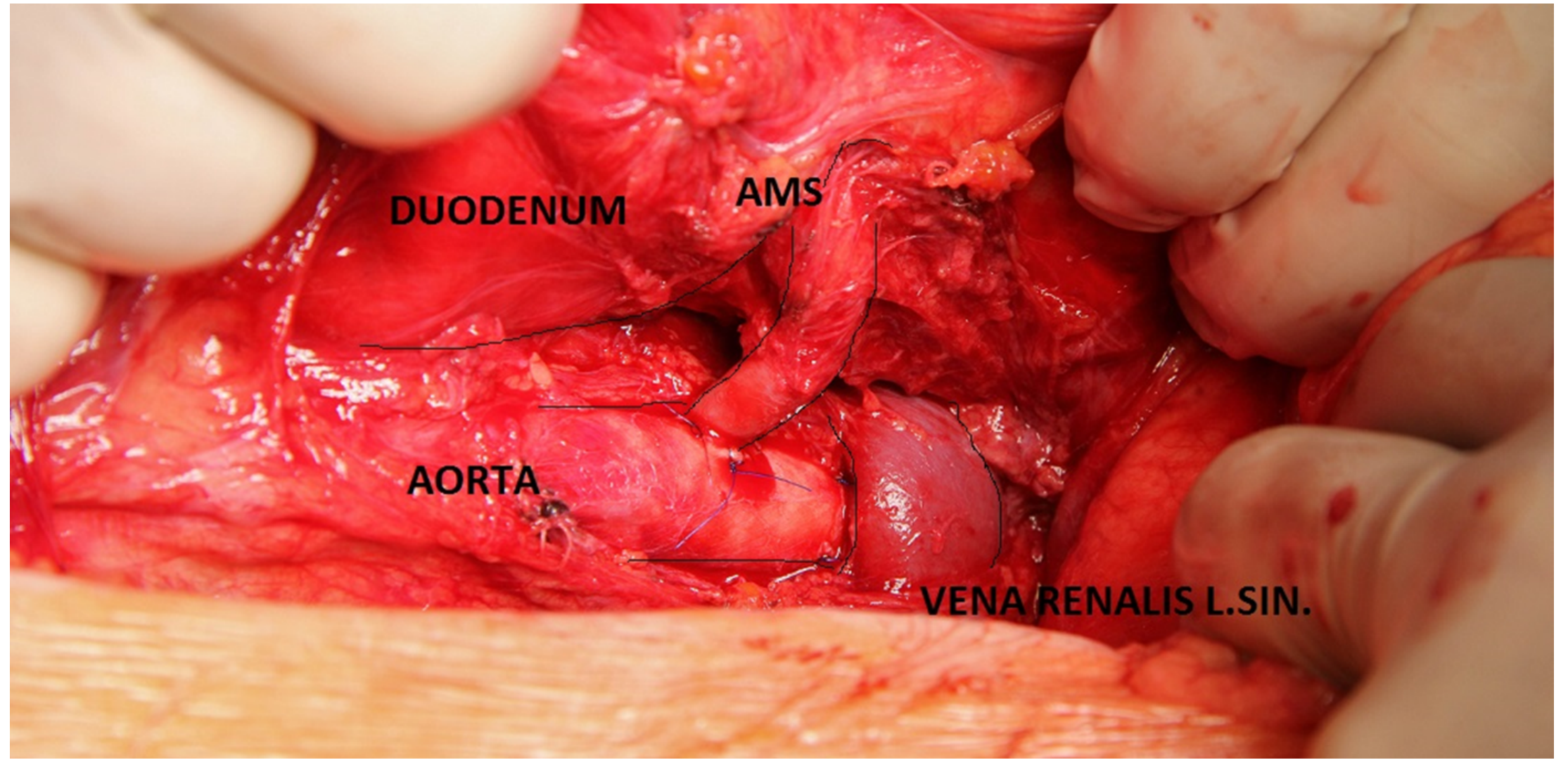
## **SMA** DISCUSSION



# TRANSPOSITION AND REINVERSION OF SMA INTO INFRARENAL PART OF AORTA END TO SIDE







# BENEFITS

- more **safe** surgical option
- more **physiological** with favorable outcomes.
- NO disrupting the **GI continuity**

**Complications** ( hemorrhage-ischemia-lymphocele )



TRANSPOSITION



WHEN

- Completely gastroenterological investigation
- Significant clinical symptomatology, cachectization

TRANSPOSITION



WHY

Definitive treatment of **ETIOLOGY**

Decompression of the **duodenum** and also of the **left renal vein**  
(**Nutcracker , PVC** )

The physiological **continuity** of the intestines remains **intact**

Good quality of life without persistent symptoms  
(**weight gain , no pain , fear of eating**)

THANK YOU...

