Hospitais Federais no Rio de Janeiro

HOSPITAL FEDERAL DE BONSUCESSO

Wilkie's Syndrome: A Case Report

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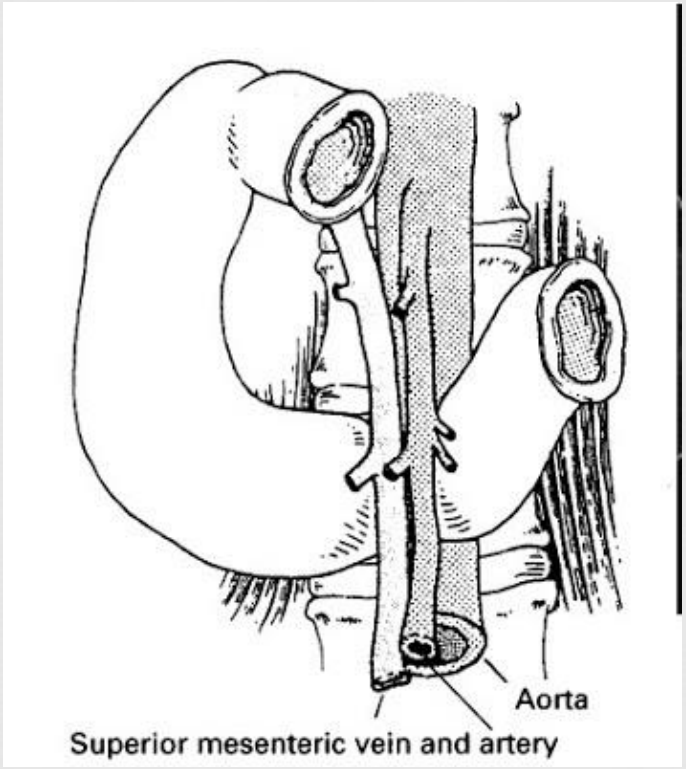
3rd International Conference on Surgery and Anesthesia

AIM

- The aim of this study is to report the case of a patient with Wilkie's Syndrome presentation who underwent a surgery in the I Surgical Clinic at the Hospital Federal de Bonsucesso, with a favorable outcome.

DEFINING WILKIE'S SYNDROME

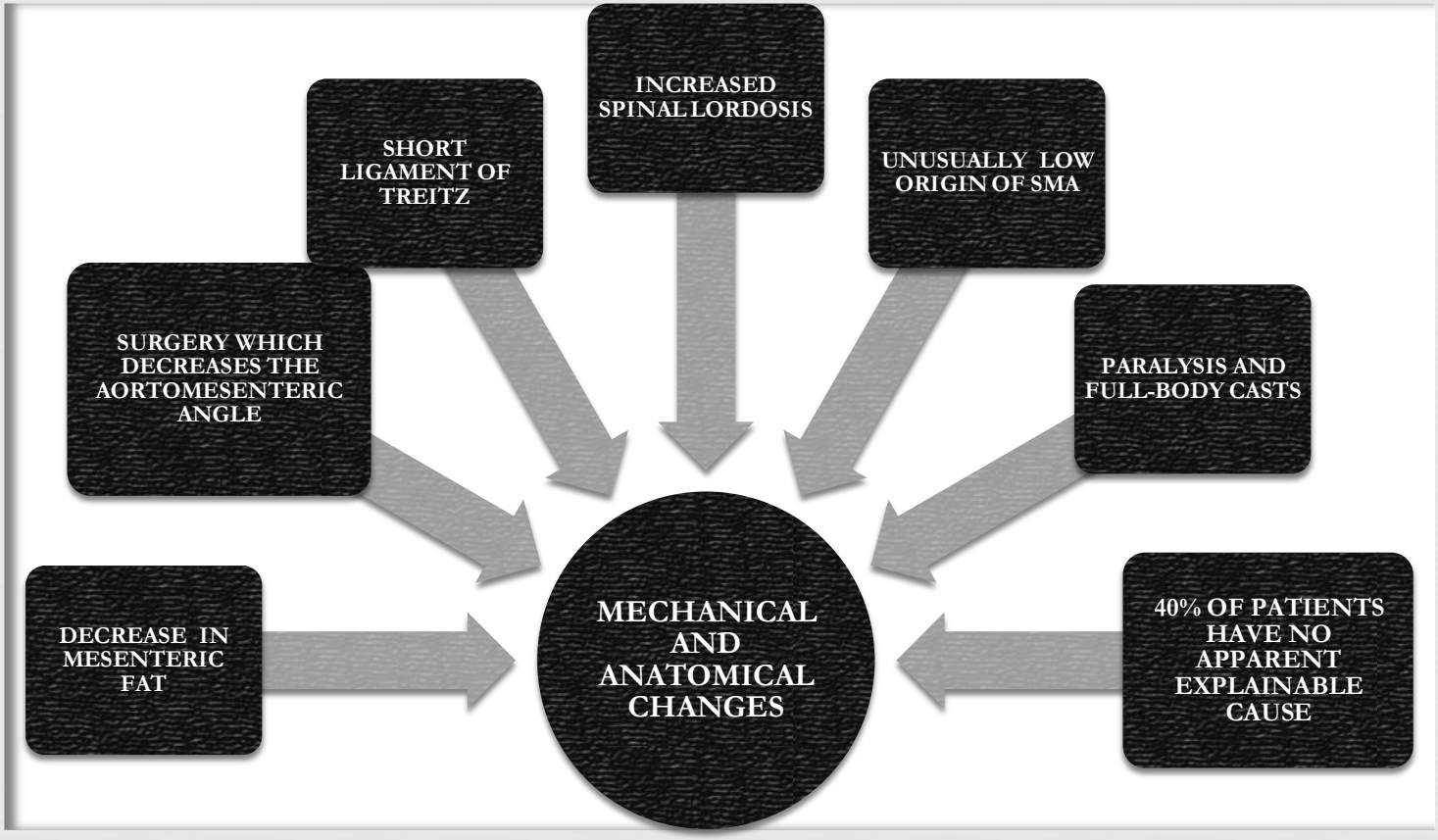
- "***Vascular Compression of the Duodenum, also known as Superior Mesenteric Artery Syndrome or Wilkie's Syndrome, is a rare condition characterized by compression of the third portion of the duodenum by the superior mesenteric artery as it passes over this portion of the duodenum.***" **(SABISTON, 2012)**



DEFINING WILKIE'S SYNDROME

	NORMAL	WS
Aortomesenteric angle	25 – 60 degrees	6 – 20 degrees
Aortomesenteric distance	10 – 28 mm	2 – 8 mm

PATHOPHYSIOLOGY



EPIDEMIOLOGY

- The Syndrome is known since 1842
- It was reported in the literature in 1927 by Wilkie
- About 400 cases have been described in English literature
- The prevalence of the Syndrome is between 0.03 and 0.3%
- Females are more affected by WS
- 75% of the cases occurred in patients aged 10-30 years old

CLINICAL PRESENTATION

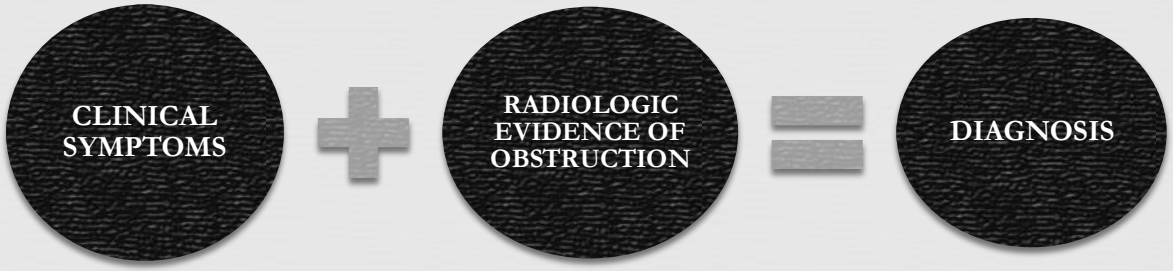
Acute Presentation:

- Nausea
- Vomiting
- Abdominal pain
- Abdominal distension
- Tympani
- Abnormal bowel sounds

Chronic Presentation

- Long-standing vague abdominal symptoms
- Recurrent episodes of abdominal pain associated with vomiting
- Early satiety
- Anorexia

DIAGNOSIS



- Barium Upper Gastrointestinal Series
- Computed Tomography Angiography
- Nuclear Magnetic Resonance Angiography

DIAGNOSIS

MEGADUODENUM

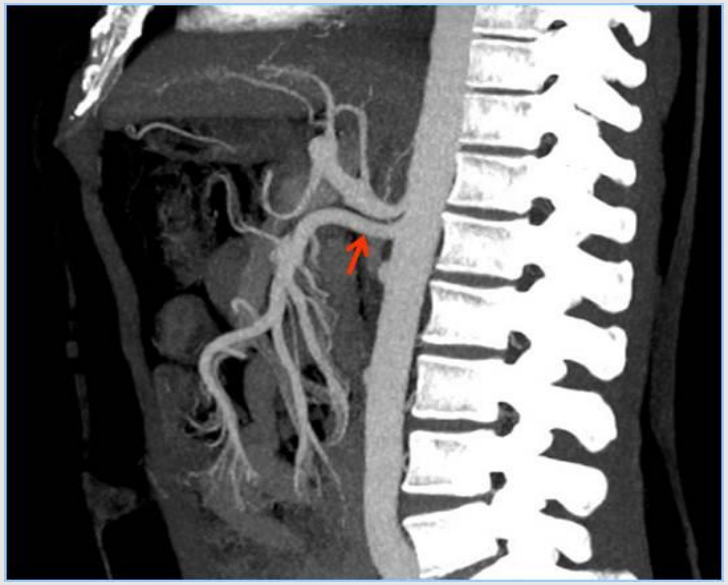


BARIUM STUDY

- **A CLASSIC PICTURE obtained is a dilated proximal duodenum with an abrupt termination of the barium column in the third part.**

DIAGNOSIS

Normal CT ANGIOGRAPHY
Normal aortomesenteric angle



CT ANGIOGRAPHY
shows the reduced aortomesenteric angle !!



TREATMENT

MEDICAL CARE

- Adequate nutrition
- Nasogastric descompression
- Proper positioning of the patient after eating (left lateral decubitus, prone)

SURGICAL CARE

- Conservative measures are ineffective
- A trial of conservative treatment should be instituted for at least 4-6 weeks prior to surgical intervention
- It consists of a duodeno-jejunal anastomosis

CASE REPORT

- A 37 – year – old **female** was admitted to the ward of the I Surgical Clinic of the Hospital Federal de Bonsucesso-Rio de Janeiro - Brazil on June 18th 2014 complaining of **epigastric pain** beginning four years earlier with moderate intensity with **worsening after meals**, in addition to **nausea and vomiting** associated.
- The patient also reported **weight loss of 37 kg (81 pounds)** during this period, reaching 40 kg (88 pounds).
- Past history of **laparoscopy cholecystectomy** performed **four years earlier**

CASE REPORT

- She underwent a **screening for cancer**, with **normal** endoscopy, colonoscopy and computed tomography of chest, abdomen and pelvis.
- Subsequent **barium study** (traffic slender) suggested an **extrinsic compression of the third portion of the duodenum and distension upstream**.
- A **CT Angiography** revealed an anomalous pathway of the superior mesenteric artery, which is nearly parallel to the aorta.

CT ANGIOGRAPHY



CT ANGIOGRAPHY



CT ANGIOGRAPHY



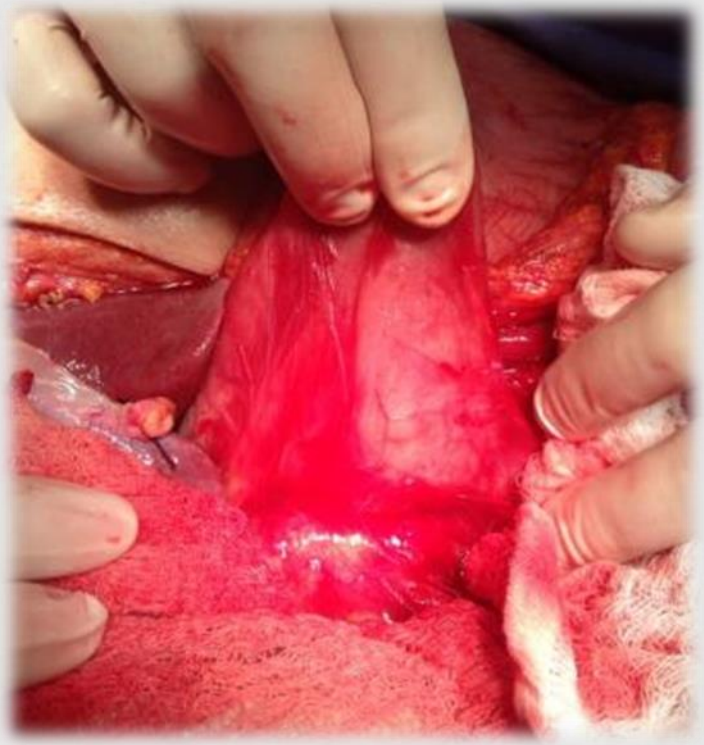
CASE REPORT

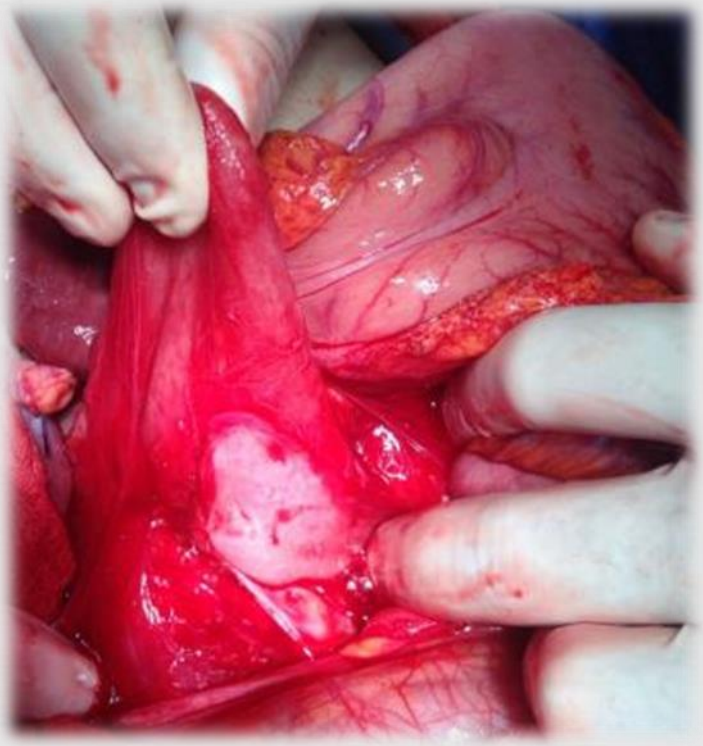
- The case was discussed in clinical session of the I Surgical Clinic. **The diagnosis of Wilkie's Syndrome** was considered, although very questioned.
- A **surgical approach** was proposed: **LAPAROTOMY**.

CASE REPORT

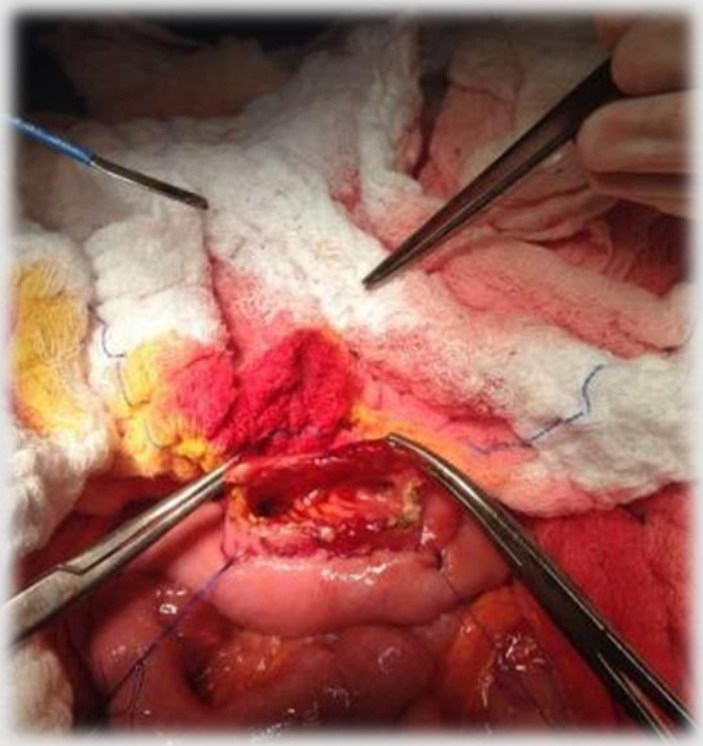
- The **SURGERY (**on June 27th 2014) showed an **aortomesenteric clamp compressing the third portion of the duodenum** and **gastrectasia**, establishing the **diagnosis of Wilkie's Syndrome**.
- The superior mesenteric artery was **adhered** to the duodenum.
- Duodenum **biopsy** ruled out nervous tissue damage;
- A **latero-lateral duodeno-jejunal anastomosis** was performed.

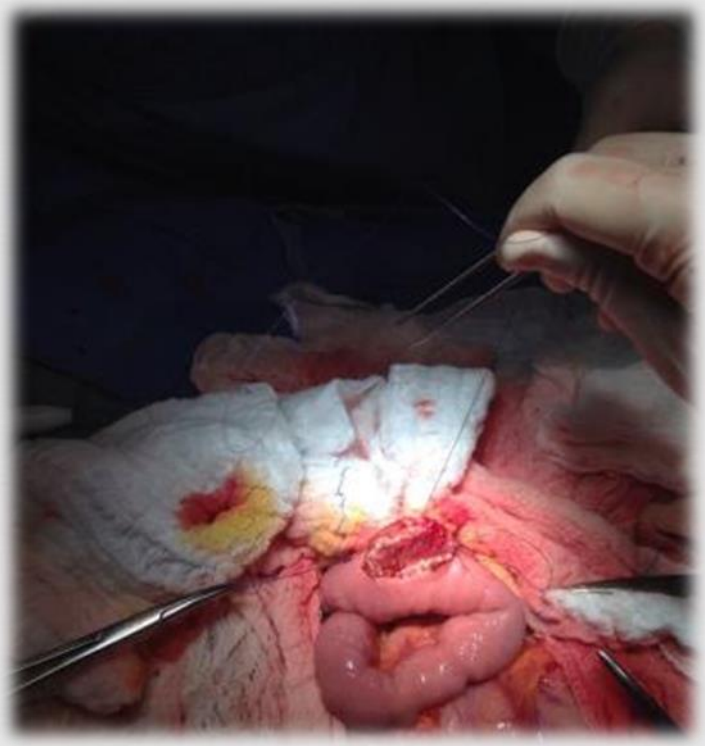
SURGERY



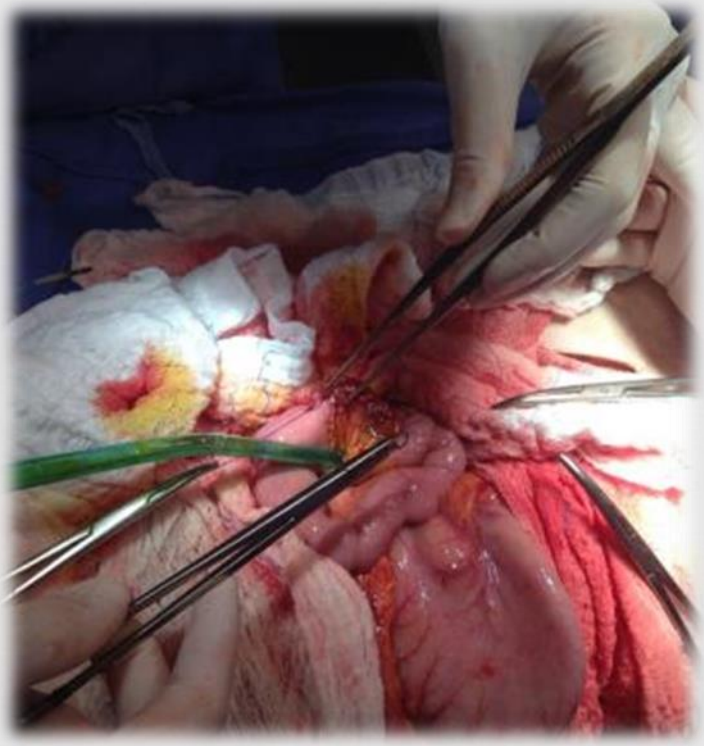


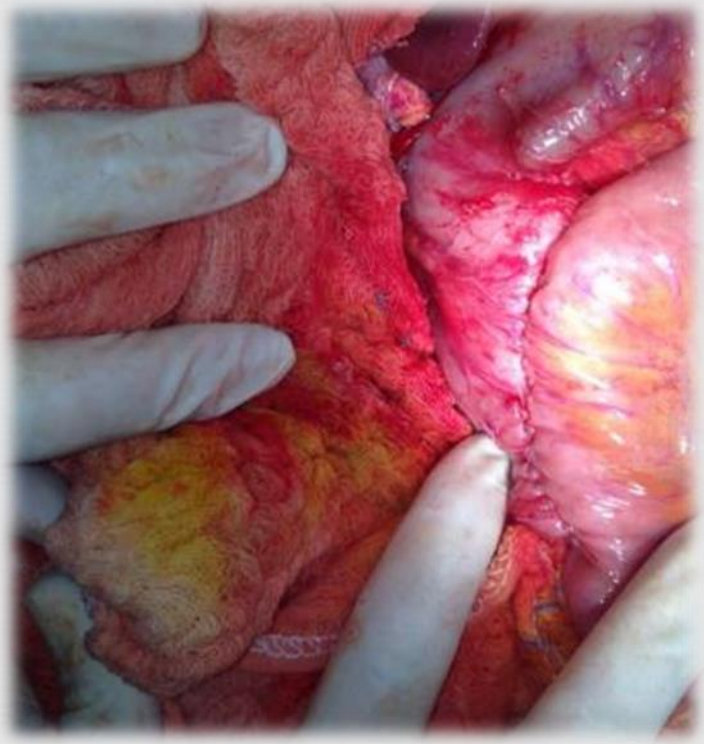
SURGERY





SURGERY





CASE REPORT

POSTOPERATIVELY:

- The patient **recovered well** postoperatively;
- The **oral diet** was started on the second day;
- The patient was **discharged on the eighth postoperative day**, on July 4th 2014.

CASE REPORT

OUTPATIENT FOLLOW-UP OF 130 DAYS:

- The patient is completely free of symptoms;
- She gained 10 kg (22 pounds).

PSYCHOLOGICAL FOLLOW-UP:

- The patient fears recurrence of symptoms.

DISCUSSION

WILKIE'S SYNDROME PRESENTATION

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CHRONIC PRESENTATION

Moderate intensity epigastric pain

Nausea and vomiting

Weight loss of 37 kg (81 pounds)

DISCUSSION

IMAGING TECHNIQUES CHARACTERIZED THE WILKIE'S SYNDROME

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BARIUM STUDY

Extrinsic compression of the third portion of the duodenum

Distension upstream

CT ANGIOGRAPHY

Anomalous pathway of the superior mesenteric artery

DISCUSSION

CONVENTIONAL APPROACH → LAPAROSCOPY

Minimally invasive surgery

✖

APPROACH OF CHOICE → LAPAROTOMY

The SMA was adhered on the duodenum

Past history of surgery: prior laparoscopic cholecistectomy

DISCUSSION

LATERO-LATERAL DUODENOJEJUNOSTOMY

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Conservation of the pyloric function

Prevention of alkaline gastritis

CONCLUSION

- **The patient saw 12 specialists in the period of 2 years looking for a diagnosis, unsuccessfully. By the end of this period, the 12th specialist, a professor from State University of Rio de Janeiro, referred her to Doctor Flávio Antônio de Sá Ribeiro, who took over the case in the I Surgical Clinic at the Hospital Federal de Bonsucesso, with a favorable outcome.**


Thank you, Doctor Flávio Antônio de Sá Ribeiro!!
Thank you all for your attention!!