PATOLOGIA CHIRURGICALA A DIAFRAGMULUI

Anatomie

- Diafragmul = sept transversal care desparte cavitatea abdominala de cavitatea toracica
  - muschi inspirator

Patologia diafragmului

- eventratii
  - ascensionarea viscerelor abdominale in torace,
  - diafragm relaxat dar integru
- hernii
  - traversarea diafragmului de catre viscerele abdominale
    - embrionare
    - castigate
    - traumatice

Herniile hiatusului esofagian

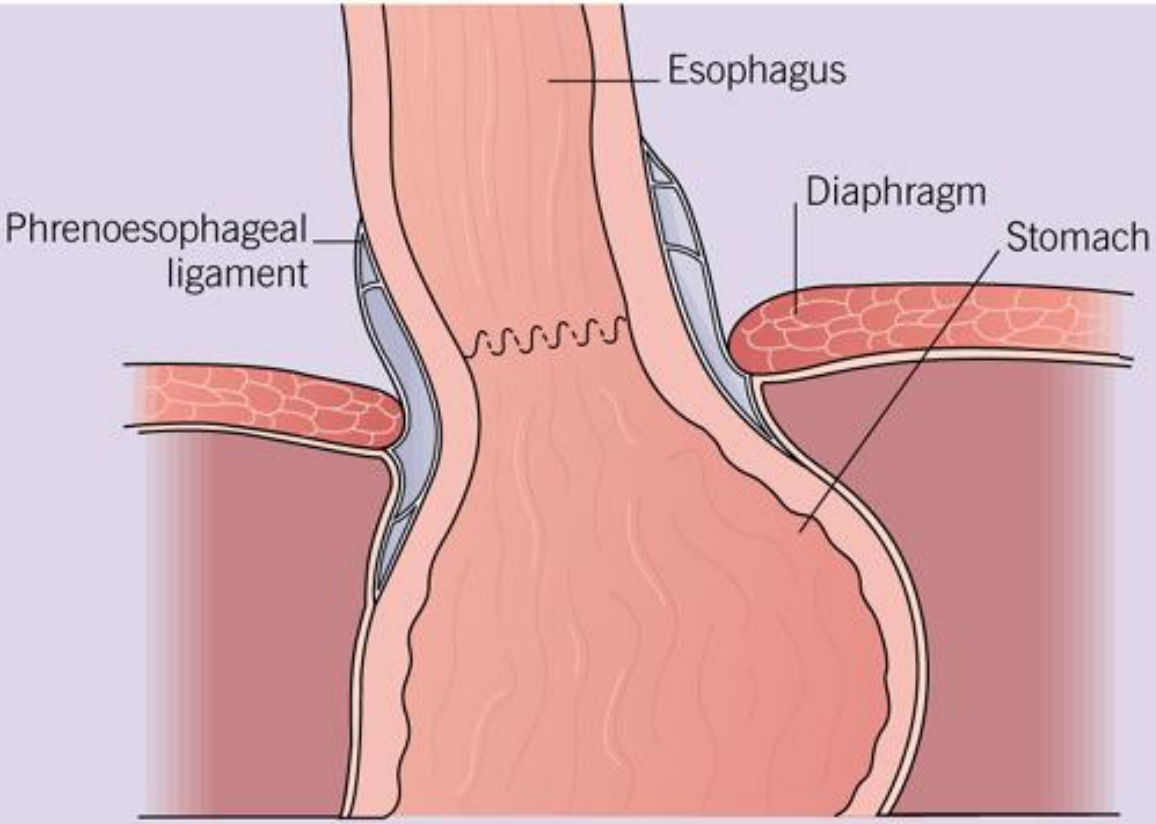
Definitie

Patrunderea permanenta sau intermitenta a stomacului prin hiatusul esofagian in torace, respectiv mediastinul posterior

Anatomie

- Elemente anatomice participante la H.H.
  - inelul hiatal
    - pilier drept
    - pilier stang
  - esofagul terminal
    - membrana Leimer Bertelli
    - ligamentul gastro-frenic
    - mezoesofagul posterior
    - crosa coronarei gastrice
    - pars condensa a micului epiploon
    - nervii vagi
    - fibrele Rouget, Juvara
  - fornixul gastric

RELATIONSHIP OF THE PHRENOESOPHAGEAL LIGAMENT TO THE DIAPHRAGM AND ESOPHAGUS



Fiziologie

- Functia anti-reflux
  - bariera anatomica
    - unghiul Hiss - valvula lui Gubarov
    - rozeta mucoasa eso-gastrica
    - pilierul drept
    - fibrele musculare oblice
  - Bariera functionala
    - presiunea abdominala pozitiva (10-15 cm H_2O) exercitata asupra esofagului abdominal
    - sfincterul esofagian inferior
    - clearance-ul esofagian (peristaltica)
      - presiunea esofagiana negativa !! (- 5 cm H_2O)

Fiziopatologie

- Hernia = slabirea mijloacelor de fixare
- Refluxul gastro-esofagian
  - slabirea barierei anatomice
  - alterarea mecanismelor functionale antireflux

Clasificare

- Akerlund, 1926
  - brahiesofag congenital - tip I
  - paraesofagiene - tip II
  - esogastrice - tip III
- Sweet, 1952
  - H.H. de alunecare
  - H.H. de derulare paraesofagiana
  - H.H. mixte
  - H.H. cu brahiesofag

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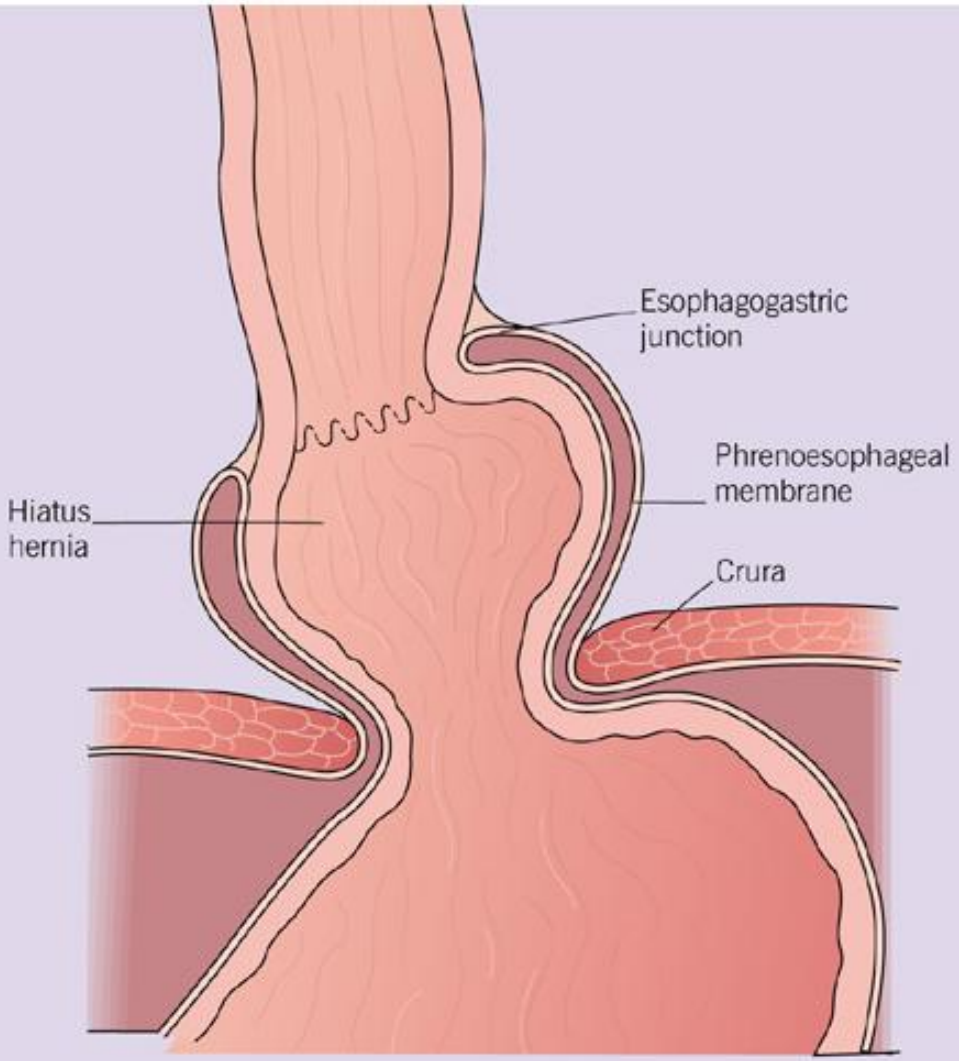
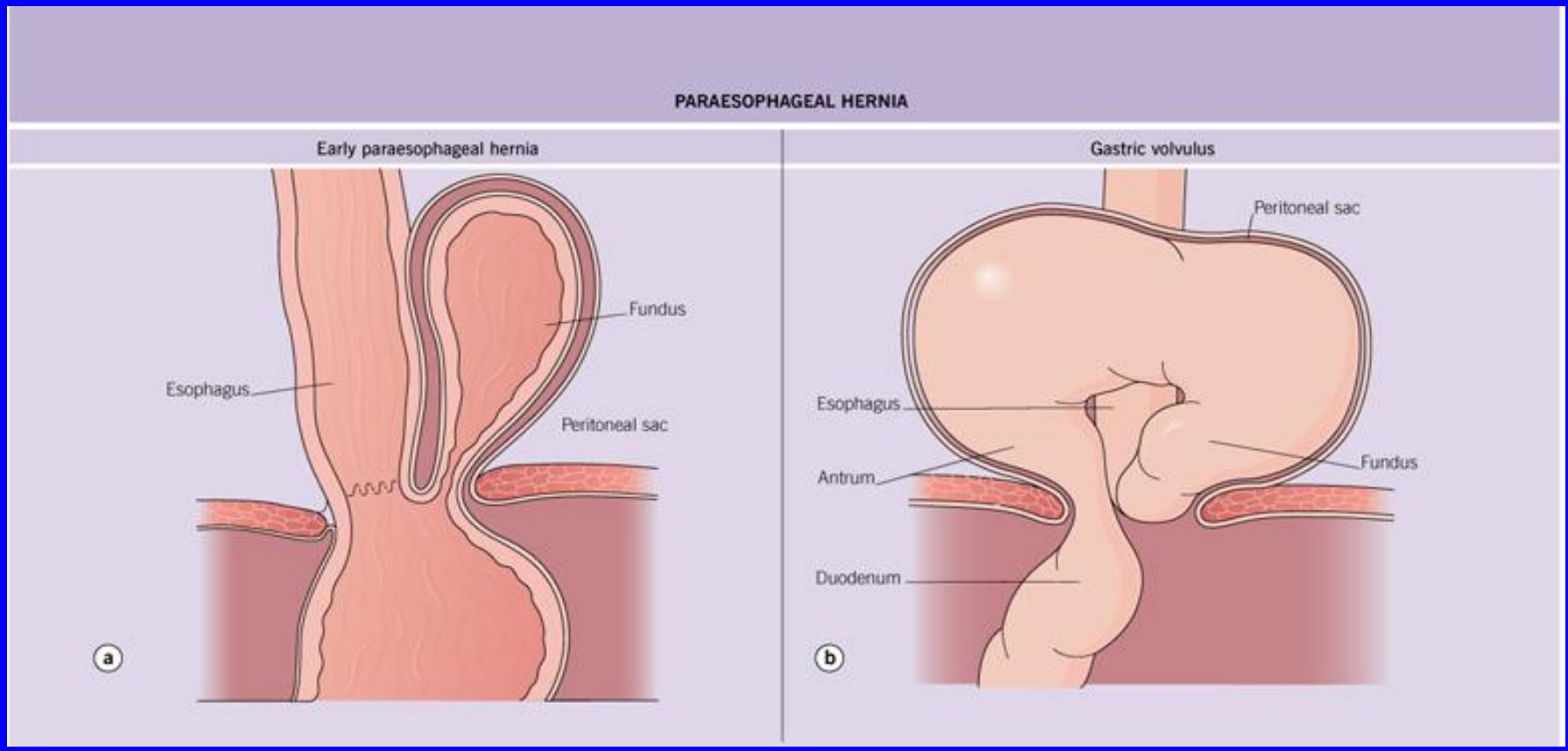
SLIDING ESOPHAGEAL HIATUS HERNIA




PARAESOPHAGEAL HERNIA
Early paraesophageal hernia
Fundus
Esophagus
Peritoneal sac
a
Gastric volvulus
Peritoneal sac
Esophagus
Antrum
Fundus
Duodenum
b

Etiopatogenie

- toate varstele
  - congenitala - copii
  - dobandita - adult
- slabirea mijloacelor de fixare
  - factori care cresc presiunea intra-abdominala
    - obezitate, constipatie cronica, adenomul de prostata, dureri abdominale cronice
  - factori care cresc presiunea intragastrica
    - stenoza piloric, hipertrofia de pilor, prolaps mucos antral
  - factori de ordin general si endocrin
    - hipotiroidie, hiperfoliculinemie, afectiuni hepatice, ateroscleroza
  - largirea orificiului hiatal - h.h. paraesofagiene

Tablou clinic

- Simptomatologie polimorfa: asimptomatica - completa
- semne de R.G.E.
  - pirozis
  - regurgitatii alimentare
  - dureri epigastrice
  - sindromul postural - semnul siretului
- semne datorate volumului herniei
  - infectii intercurente, tuse nocturna, dispnee continua, astm
  - tulburari cardiace
  - sughit
- semne ale complicatiilor herniei
  - anemia, hemoragia digestiva

Explorari paraclinice

- Ex. radiologic
  - indispensabil, tehnica corecta
  - HH de alunecare
    - opacitate deasupra diafragmului de dimensiuni variabile,
    - ax mare vertical
    - cardia intratoracic, la polul superior al opacitatii
  - HH prin derulare
    - opacitate latero-esofagiana stanga
    - cardia intraabdominal
  - semne indirecte
    - distensia esofagului terminal cu margini sinuoase
    - forma conica a regiunii subcardiale
    - pliurile mucoasei convergent spre catre orificiul hiatal
    - disparita unghiului His
    - hipertonie antrala

Explorari paraclinice

- Ex. endoscopic
  - ascensiunea liniei Z
  - semne de esofagita peptica
- pH-metria esofagiana
  - pH > 5
- testul Bernstein

Evolutie. Complicatii

- NU se vindeca spontan
- complicatii ale refluxului
  - esofagita peptica
  - ulcerul esofagian
  - endobrahiesofagul Barret
  - stenoza esofagiana
  - sangerarea
- complicatii date de volumul herniei
  - incarcerarea, strangularea
- complicatii extradigestive
  - pulmonare
  - cardiace

Tratament medical

- se adreseaza R.G.E. si complicatiilor lui
  - masuri pentru reducerea RGE
    - regimul alimentar calitativ, cantitativ
    - cura de postura
    - reducerea greutatii
    - medicamente prokinetice: metoclopramid, cisapride, reglan
  - reducerea aciditatii RGE
    - alcalinizare
    - blocanti H2
    - inhibitorii pompei de protoni

Tratament chirurgical

- Indicatii
  - esecul tratamentului de R.G.E.
  - dependenta de tratament medical
  - complicatiile R.G.E.
  - H.H. mari ± complicatii (incarcerare, strangulare)
  - H.H. asociate cu ulcer, litiza biliara

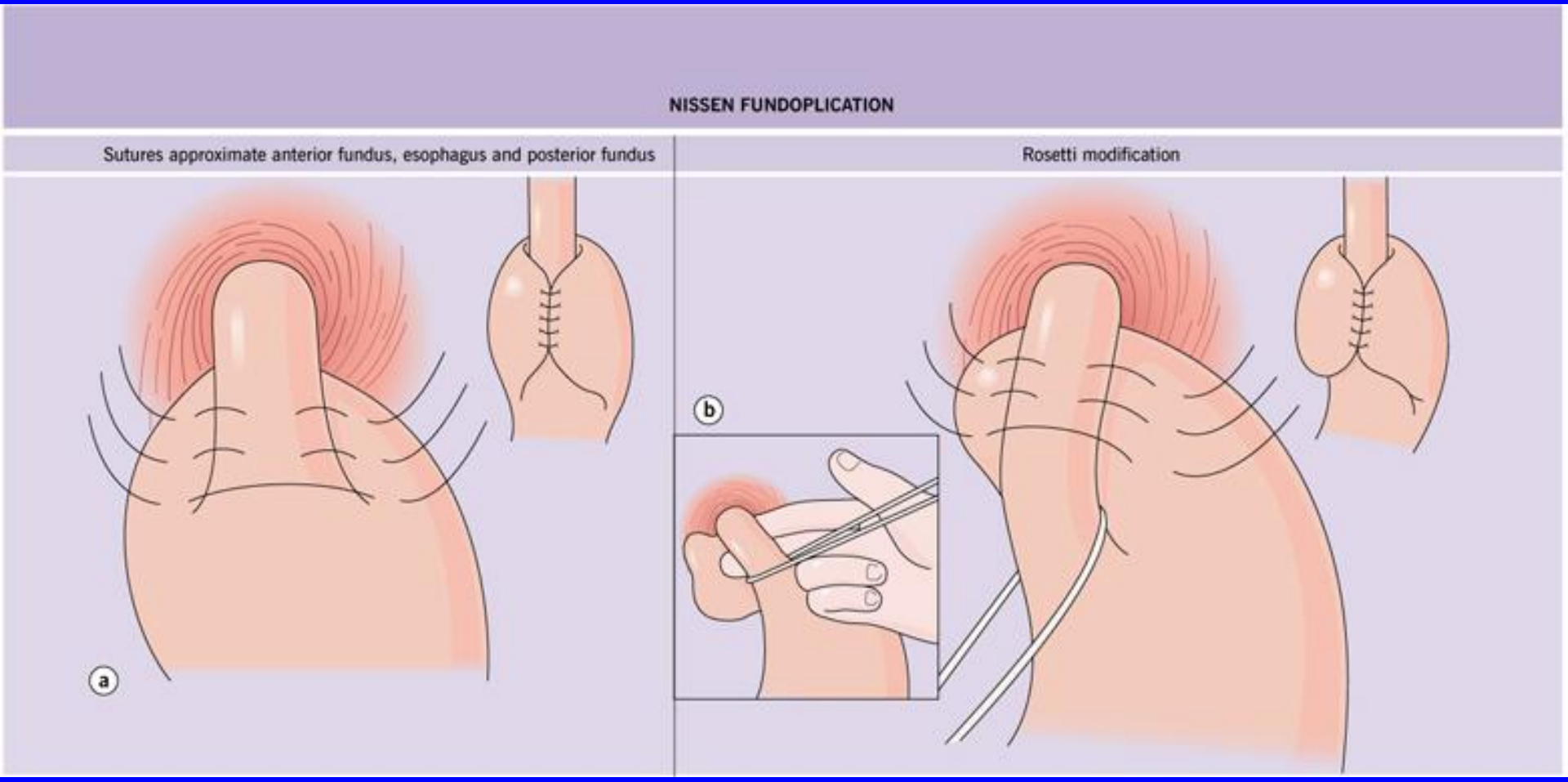
Tratament chirurgical

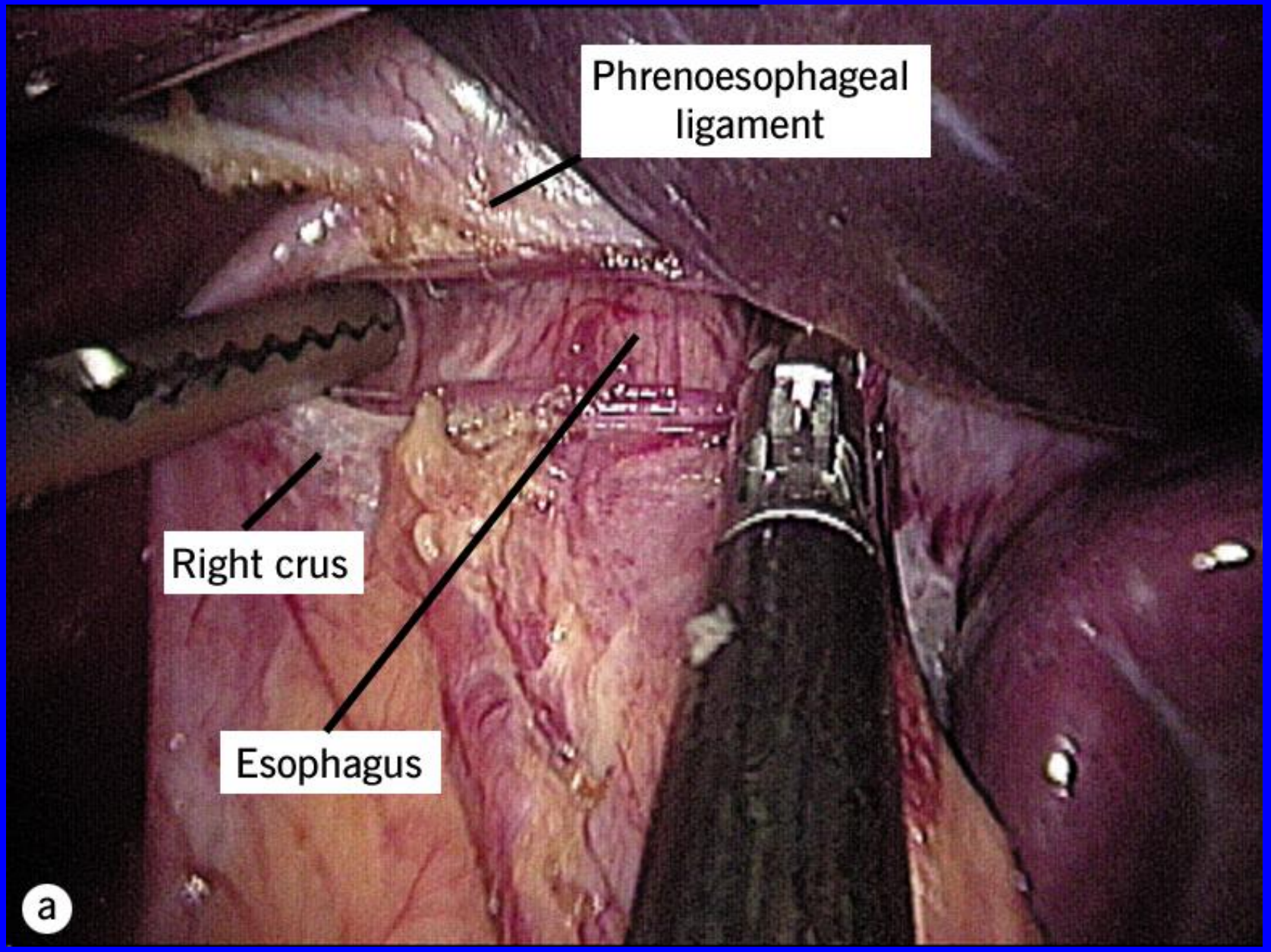
- Obiective
  - reducerea herniei
  - repozitionarea si fixarea esofagului abdominal in abdomen
  - rezectia sacului (h.h. paraesofagiene)

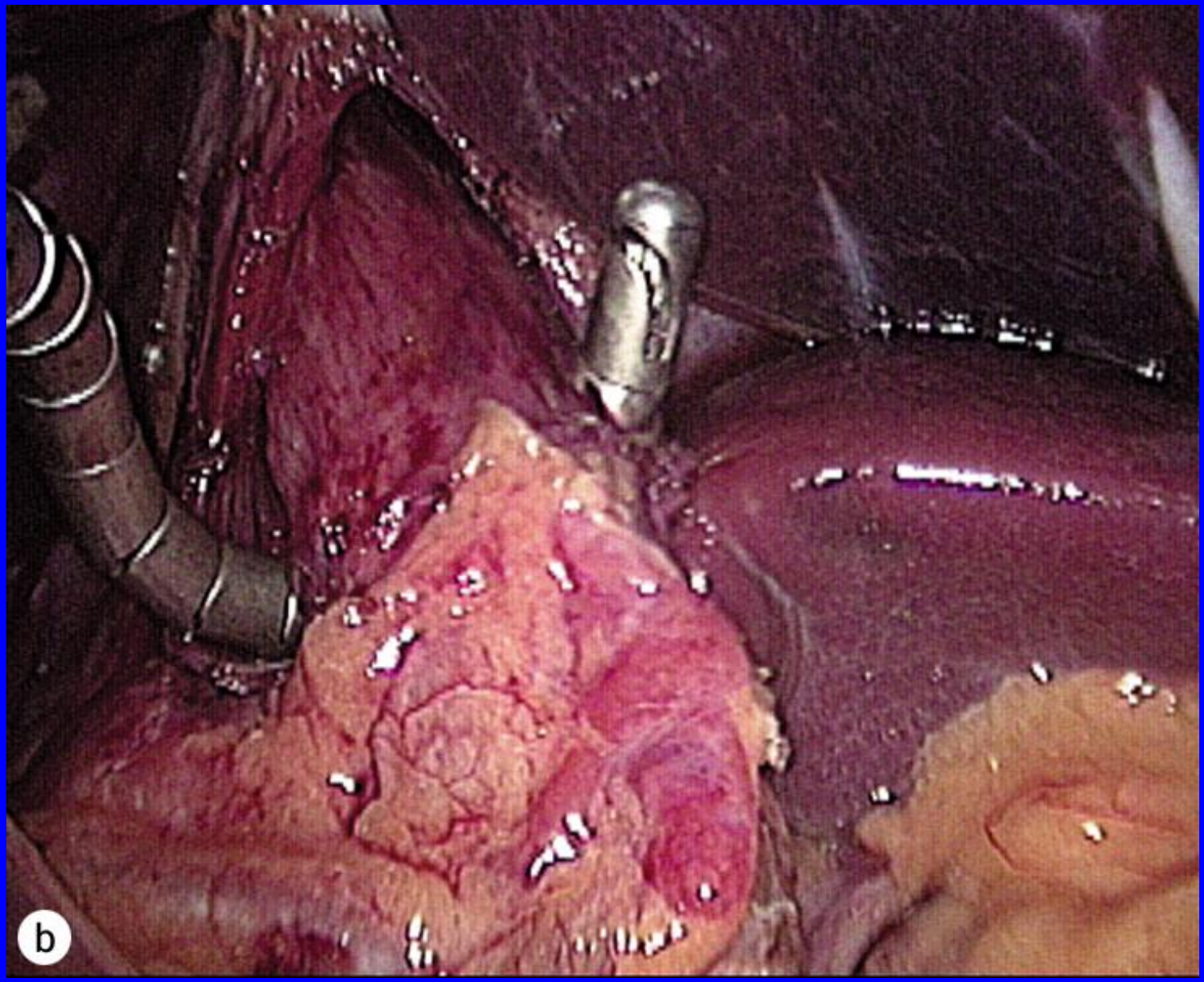
- Cale de abord
  - toracica
  - abdominala
  - mixa

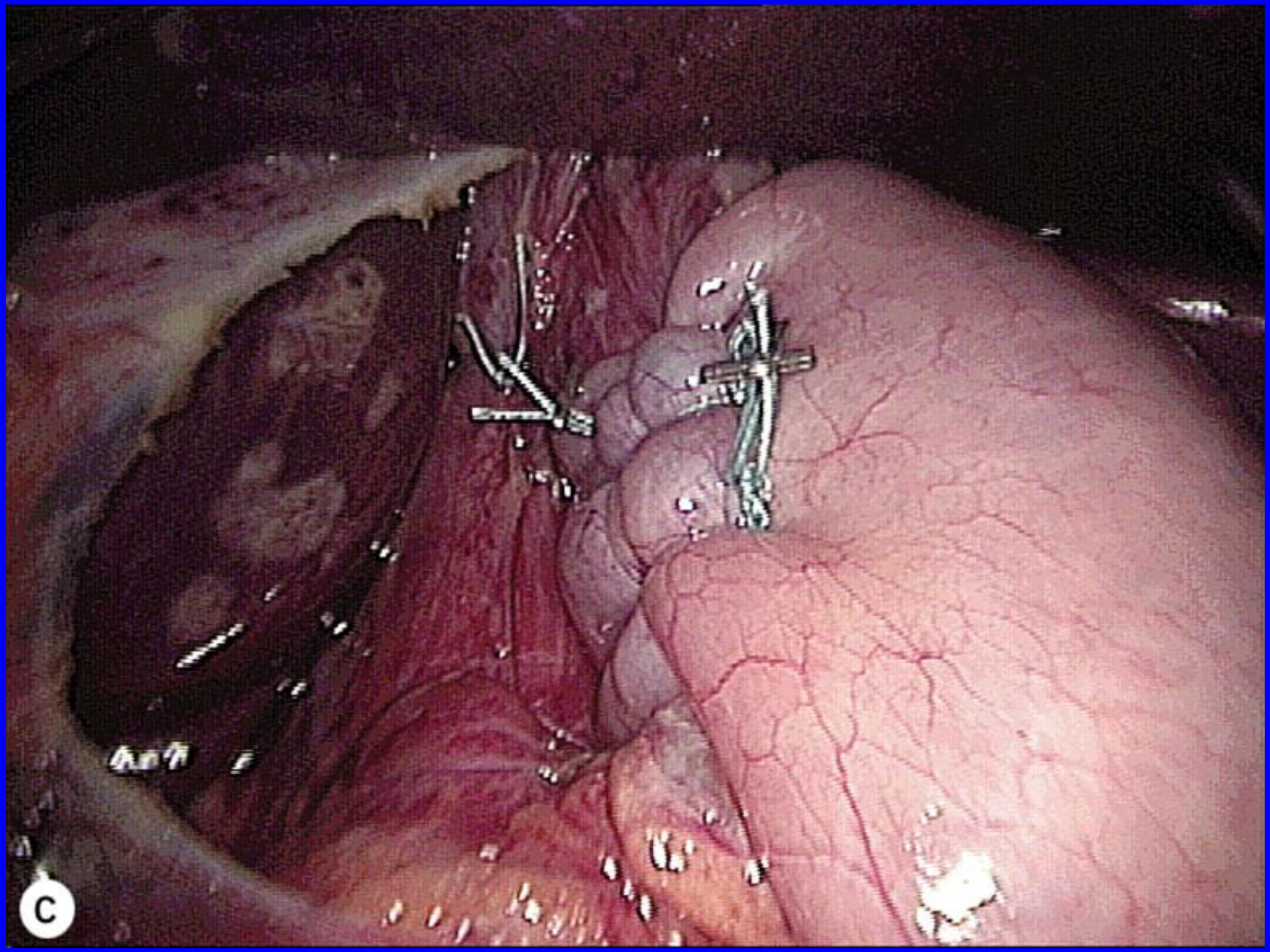
Tratament chirurgical

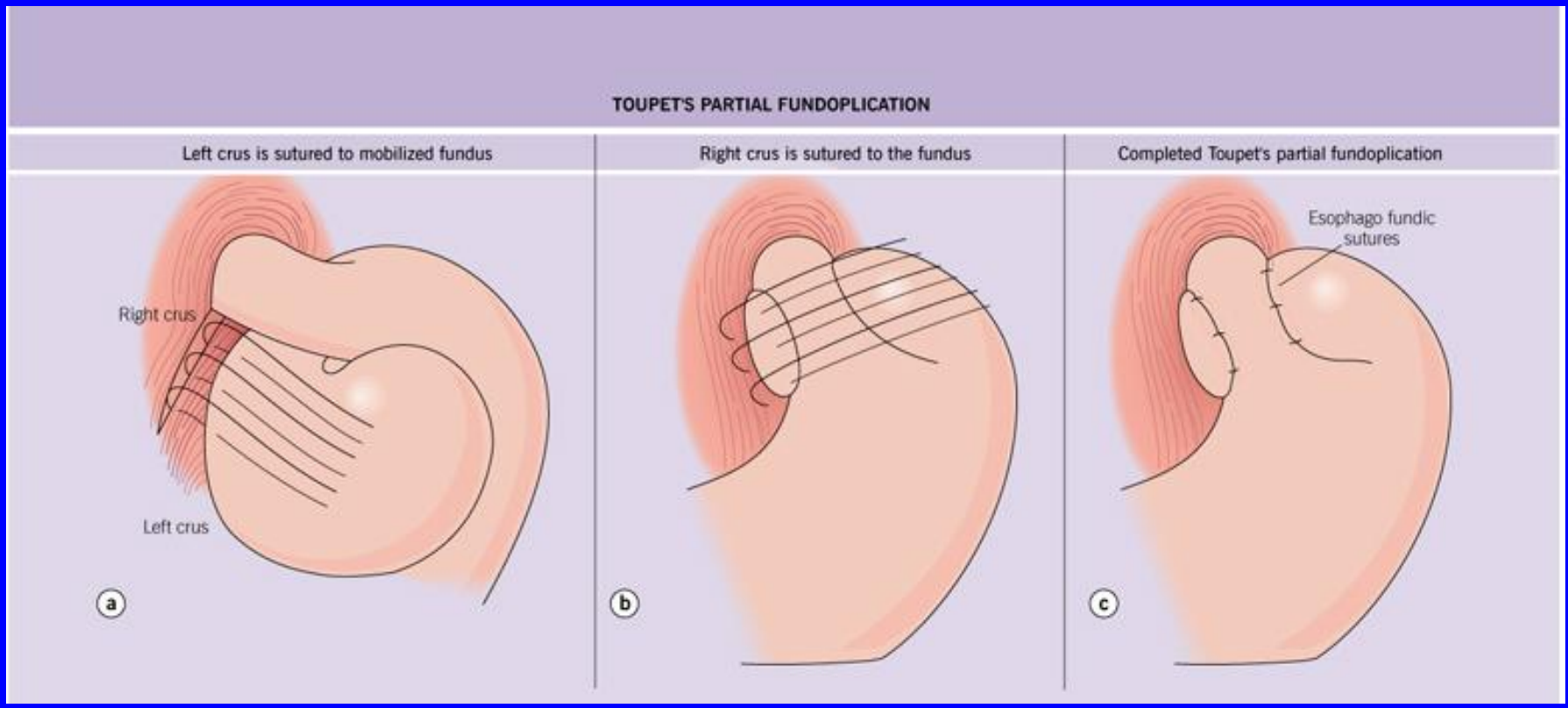
- Procedee folosite
  - Lortat-Jacob
  - fundoplicaturi
    - hemivalva tuberozitara anterioara Dorr
    - hemivalva tuberozitara posterioara Toupet
    - hemivalva anterioara+posterioara Nissen
  - gastropexiile


NISSEN FUNDOPLICATION
Sutures approximate anterior fundus, esophagus and posterior fundus
Rosetti modification
a
b


Phrenoesophageal ligament
Right crus
Esophagus
a


b


C


TOUPET'S PARTIAL FUNDOPLICATION
Left crus is sutured to mobilized fundus
Right crus is sutured to the fundus
Completed Toupet's partial fundoplication
Right crus
Left crus
Esophago fundic sutures
a
b
c