Case Management, Presentation and Discussion and Sharing of Information on Vomiting and Obstipation

Nolan Ortega Aludino, M.D.

General Data

O.F.

53-year-old

Male

Ermita

Chief Complaint

“Vomiting, Inability to pass stool”

History of Present Illness

2 days PTC → abdominal pain, periumbilical,

non radiating

not affected by food intake

no loose bowel movement

no anorexia, no fever

(+) vomiting

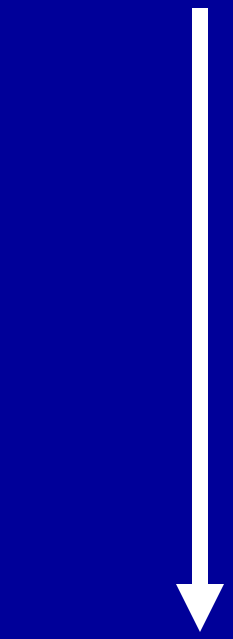
No consult, no medications

History of Present Illness

1 day PTC → persistence of abdominal pain,
increase in severity,
colicky, generalized
no bowel movement
(+) vomiting,
no consult, no medications

History of Present Illness

few hours PTC → persistence of symptoms



with increase in severity

(+) vomiting of “fecal” material

abdominal distention

no bowel movement

consult

Past Medical History

- 1986 – Appendectomy – Labor hospital
- 2005 – COPD – Ospital ng Maynila Medical Center
- no hypertension, no diabetes mellitus
- no bronchial asthma

Family Medical History

- denies history of heredofamilial disease

Personal and Social History

- 35 pack year smoking history
- Alcoholic beverage drinker

Review of Systems

- no body weakness, no fever
- no tinnitus, no headache, no dizziness
- no dysuria, no hematuria, no oliguria
- no melena

Physical Examination

General Survey: conscious, coherent, not in distress

Vital Signs:

BP= 130/70 CR= 70’s

RR= 20’s T=37.3°C

Physical Examination

HEENT: anicteric sclerae, pink palpebral conjunctivae, no nasoaural discharge, no cervical lymphadenopathies

Physical Examination

Chest and Lungs: symmetrical chest expansion, no retractions, no lagging, clear and equal breath sounds

Cardiac: normal rate, regular rhythm, no murmur

Physical Examination

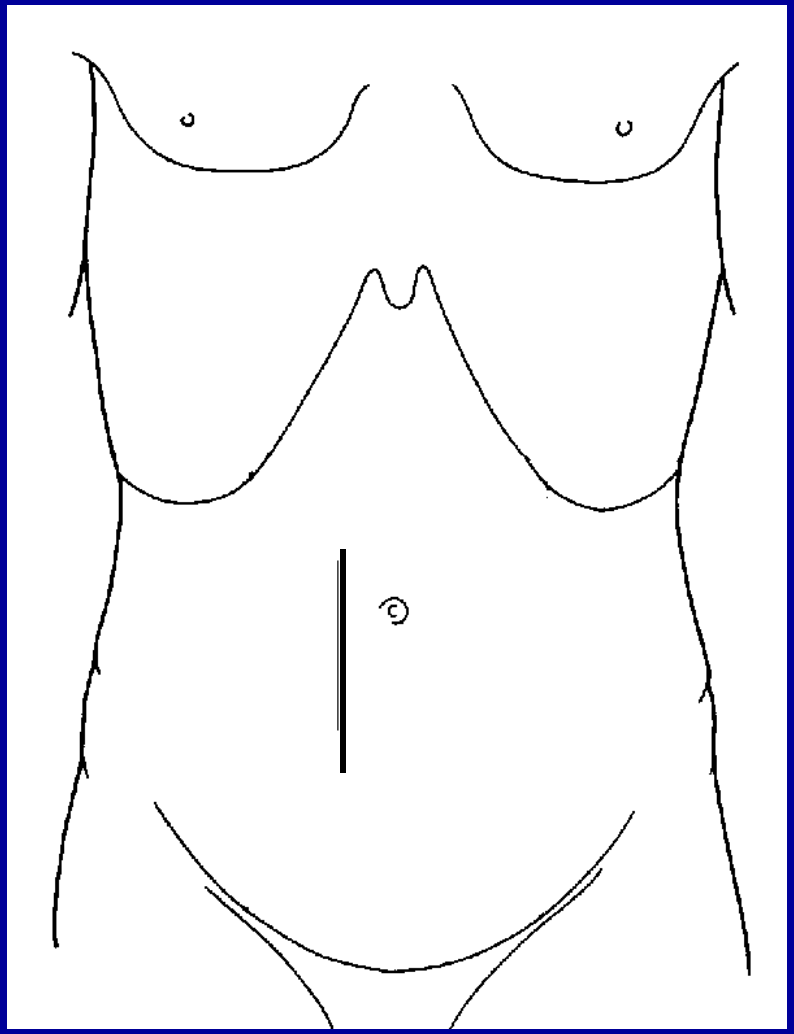
Abdomen:

distended,

(+) muscle guarding,

(+) tenderness on all quadrants,

(+) paramedian surgical scar



Physical Examination

Extremities: Grossly normal, full and equal pulses

Physical Examination

Digital Rectal Examination: no skin tags, good sphincteric tone, collapsed rectal vault, no mass palpated, no feces on tactating finger

At the Emergency Room

- Seen and examined by Department of Internal Medicine
  - Plain Film of the Abdomen requested
    - Ileus
  - Serum Na+, K+ requested
    - Normal values
  - Referred to Department of Surgery for further evaluation and management

At the Emergency Room

- Surgery ER
  - NPO
  - Venoclysis:
    - D5LRS 1L x 8 hours
  - Adequate antibiotic coverage started

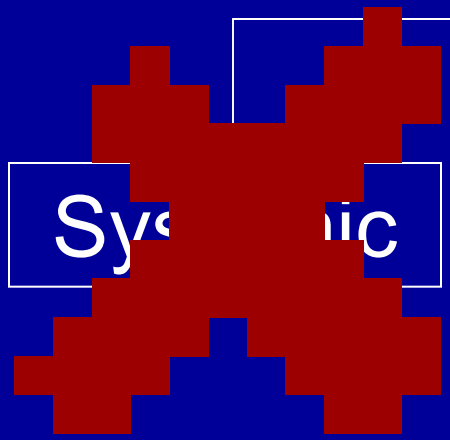
At the Emergency Room

- Nasogastric Tube inserted
  - Fecaloid output
- Indwelling foley catheter inserted

Salient Features

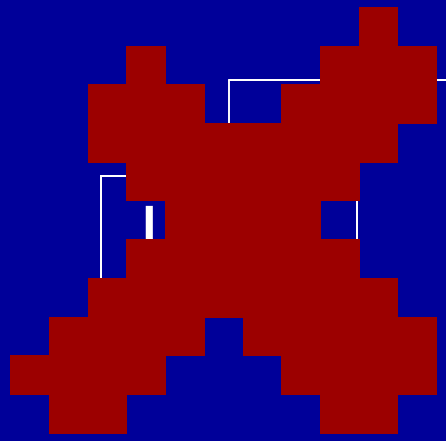
- 53-year-old
- Male
- Vomiting
- Inability to pass stool
- Abdominal pain, colicky
- Fecaloid, NGT output
- Distended abdomen
- Abdominal tenderness
- s/p Appendectomy (1986)

VOMITING



Mechanical

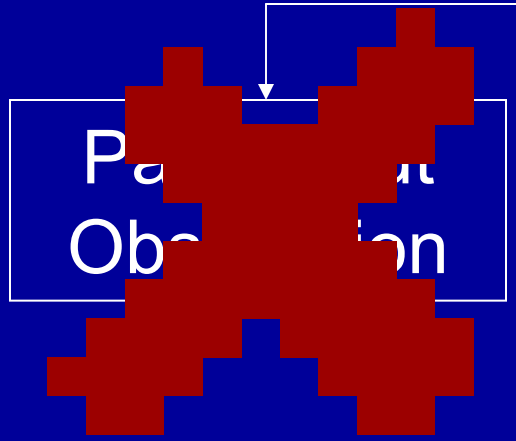
Mechanical



LGIT

- Abdominal Distention
- Fecaloid vomitus

LGIT



Complete Gut Obstruction

- Abdominal Distention
- Fecaloid vomitus
- Collapsed rectal vault

Clinical Diagnosis

	Diagnosis	Degree of Certainty	Treatment
Primary	Intestinal Obstruction secondary to POA, complete, strangulated	95%	Surgical
Secondary	Intestinal Obstruction secondary to POA, complete, non strangulated	5%	Surgical

Paraclinical Diagnostic Procedure

- Do I need to perform a paraclinical diagnostic procedure?

"NO"

- High degree of certainty
- Same treatment

Pre-treatment Diagnosis

	Diagnosis	Degree of Certainty	Treatment
Primary	Intestinal Obstruction secondary to POA, complete, strangulated	95%	Surgical
Secondary	Intestinal Obstruction secondary to POA, complete, non strangulated	5%	Surgical

Goals of Treatment

- Resolution of the obstruction
- Restore normal bowel function
- Prevent complication

Treatment Options

	Benefit	Risk	Cost	Availability
SURGERY (LAPAROTOMY)	**-> 90% - RELIEF OF OBSTRUCTION (COMPLETE & PARTIAL)** **-ACTUAL VISUALIZATION & REMOVAL OF THE CAUSE** **RR: 84% (adhesions)**	**-EXPOSURE TO ANESTHESIA** **-INTRA-ABDOMINAL CONTAMINATION**	**++**	**Available**

Treatment Options

	Benefit	Risk	Cost	Availability
SURGERY (LAPAROSCOPIC)	-> 90% - RELIEF OF OBSTRUCTION (COMPLETE & PARTIAL) -ACTUAL VISUALIZATION & REMOVAL OF THE CAUSE -RR: 40% (adhesions)	-EXPOSURE TO ANESTHESIA -INTRA-ABDOMINAL CONTAMINATION -IATROGENIC INJURY TO OTHER INTRA-ABDOMINAL ORGANS	++++	Not available

Treatment Options

	Benefit	Risk	Cost	Availability
NON-SURGICAL DECOMPRESSION	**-TREATMENT OF CHOICE IN PXS W/ PARTIAL BOWEL OBSTRUCTION** **- 17-25 % RELIEF FOR COMPLETE OBSTRUCTION** **- RR: 20-30% (obstruction)**	**-BOWEL STRANGULATION**	**+**	**Available**

Treatment Plan

Surgical:

Exploratory Laparotomy

Pre Operative Management

- Secure consent
- Psychosocial support
- Optimize patient
  - Adequate hydration
- Prepare materials

Operative Technique

- Patient supine under GA
- Asepsis and antisepsis
- Sterile drapes placed
- Midline incision placed from the xiphoid process down to the suprapubic area, carried down to the subcutaneous
- Peritoneum entered

Operative Technique

- Intraoperative findings noted
  - Multiple adhesions noted involving the terminal ileum.
  - Involved segment with good peristalsis and pink in color
- Adhesiolysis done
- Hemostasis assured
- Correct sponge, needle and instrument count
- Layer by layer closure
- Dry sterile dressing

Final Diagnosis

"Intestinal Obstruction secondary to POA, complete, non strangulated"

Post-operative Management

first and second operative day → patient was kept at NPO
adequate hydration
adequate analgesia
Proper wound care
supportive care

Post-operative Management

third post operative day	→	general liquid diet
fourth post operative day	→	soft diet
Fifth post operative day	→	full diet, soft abdomen, non tender, no guarding
sixth post operative	→	discharge

After Managing the Patient

- I HAVE DISCHARGED MY PATIENT :
  - IMPROVED
  - FREE OF COMPLICATIONS

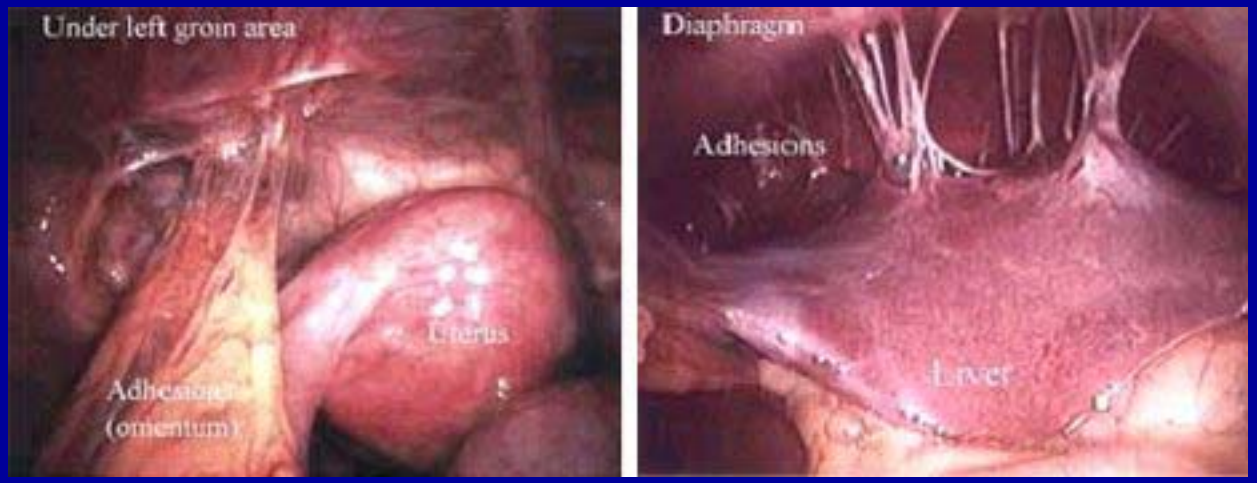
Discharge Advise

- Daily wound care
- Ff up at Surgery OPD after 1 week
- Possibility of recurrence

Sharing of Information

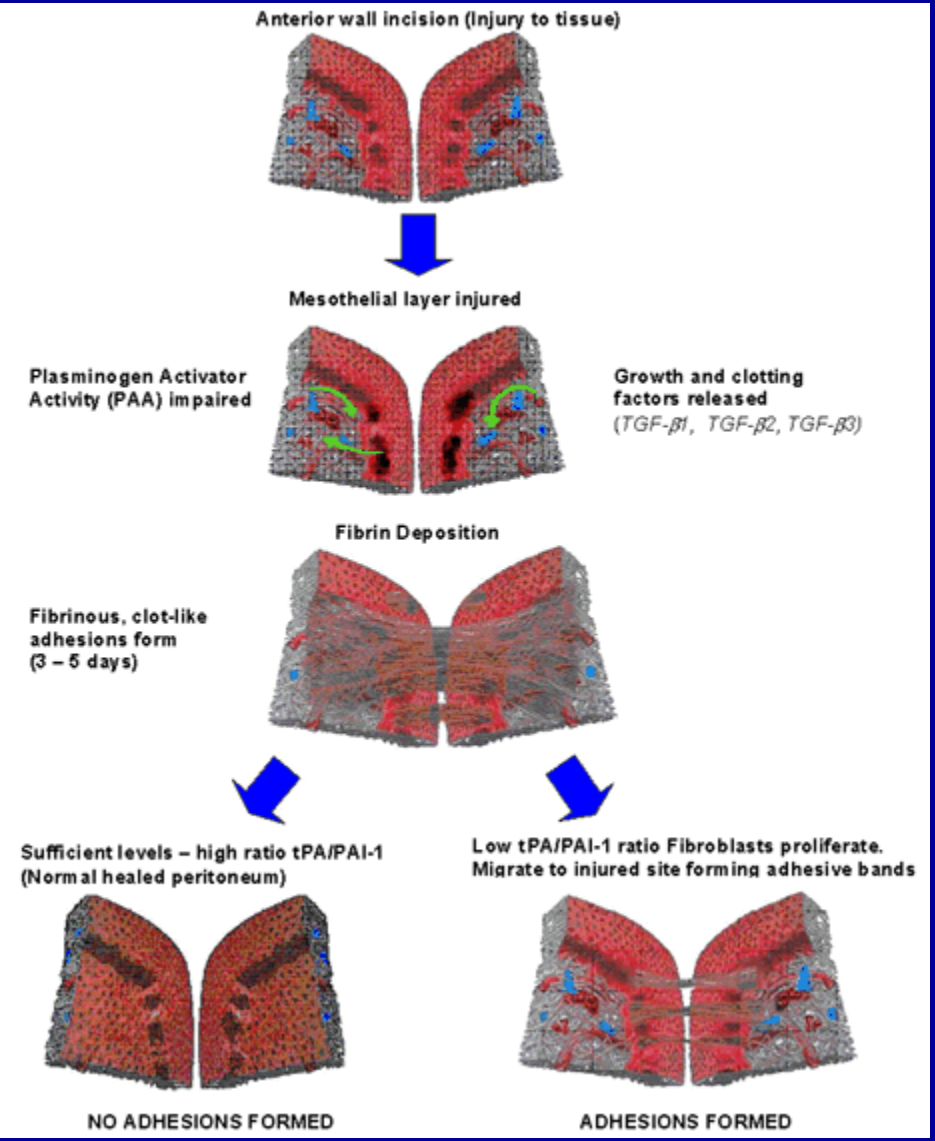
Post Operative Adhesions

- What are adhesions?
  - Adhesions are bands of tissue that connect anatomic sites at locations where there should not be connections.



Post Operative Adhesions

- How do adhesions form?



Post Operative Adhesions

- **When do post-operative adhesions form?**
  - The development of post-adhesions is thought to occur within the immediate 3-5 days following the surgical procedure.
  - modulation of the healing process during this time period is critical to minimize (and hopefully one day prevent), post-operative adhesion development.

Post Operative Adhesions

- **55 - 94% of patients having abdominal or pelvic surgery will develop post-operative surgical adhesions**

Post Operative Adhesions

- certain surgical procedures have a higher incidence of adhesion formation
  - cholecystectomy
  - appendectomy
  - colonic surgery (large colon and small bowel)
  - pelvic surgery (surgery on uterus, fallopian tubes, ovaries)

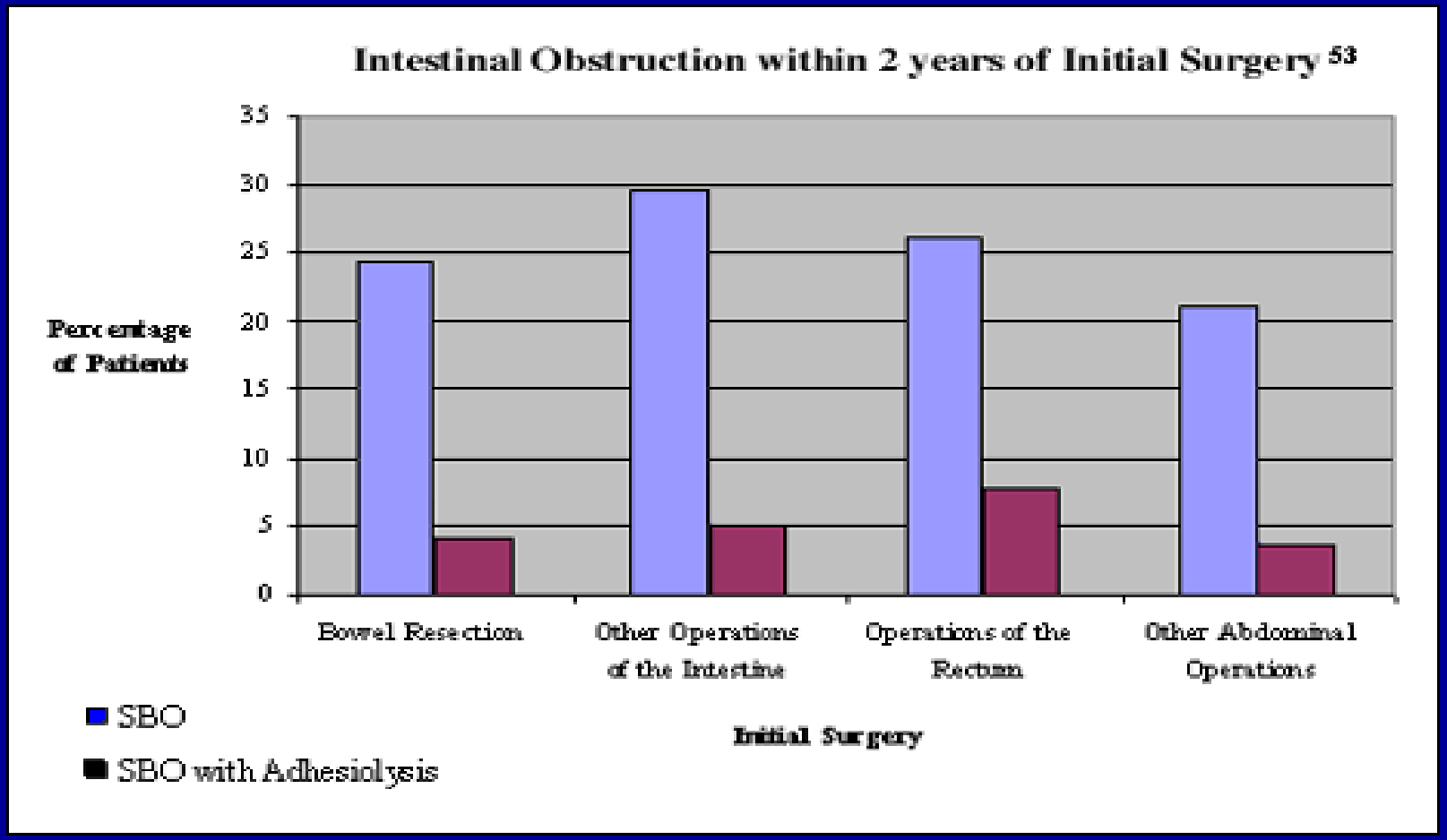
Post Operative Adhesions

- **Surgical adhesions can lead to:**
  - **small bowel obstruction**
  - **chronic abdominal and pelvic pain**
  - **infertility**

Post Operative Adhesions

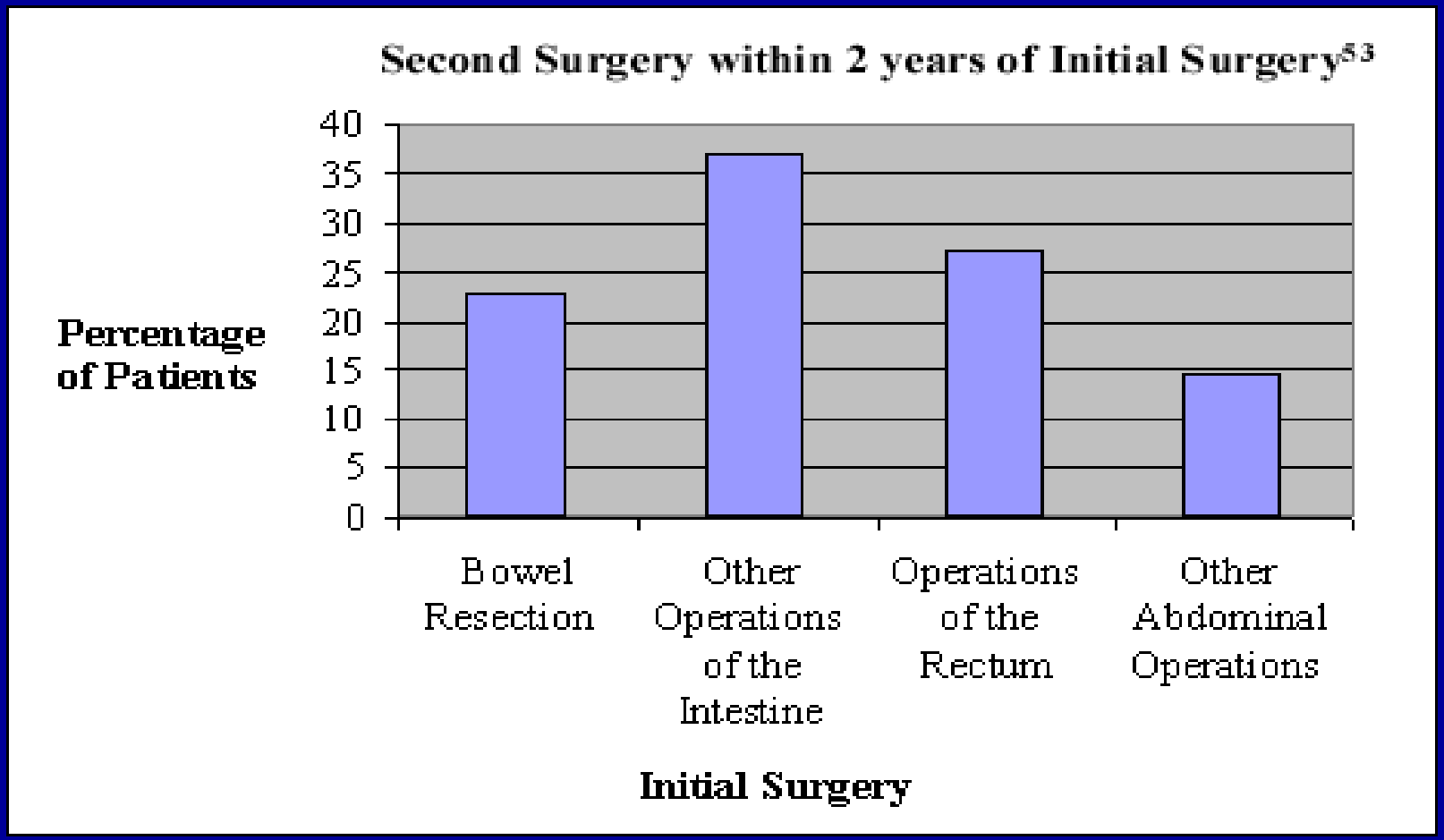
- **Can adhesions lead to bowel obstruction?**
  - Bowel obstruction following abdominal and pelvic surgery can occur within days or decades after.

Post Operative Adhesions



Beck et al, (1999)

Post Operative Adhesions



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Post Operative Adhesions

- **Can adhesions lead to infertility?**
  - Adhesions may contribute to infertility when they envelope the tubes and ovaries, or when they hold these organs in positions which minimize the possibilities of tubal ovum pickup following ovulation

Post Operative Adhesions

The 2nd leading cause of infertility in women is adhesions.

References

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MCQ #1

1. A 53-year-old man seeks consult at the emergency room. He is complaining of vomiting (fecal material), obstipation and abdominal distention. Patient underwent appendectomy ten years ago in another institution. Among the following, what is the most plausible explanation for his condition?
   A. Gastric outlet obstruction
   B. Intestinal Obstruction, functional
   C. Intestinal Obstruction 2nd to POA
   D. Intestinal Obstruction 2nd to intraabdominal mass

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MCQ #2

2. Which among the abdominal operations will most likely develop intestinal obstruction secondary to postoperative adhesions?
   A. Bowel Resection
   B. Other operations of the intestine
   C. Operations of the Rectum
   D. Other abdominal operations

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MCR #1

3. **The following surgical procedures have a higher incidence of adhesion formation**

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

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2. **appendectomy**
3. **colonic surgery (large colon and small bowel)**
4. **pelvic surgery (surgery on uterus, fallopian tubes, ovaries)**

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MCR #2

4. Surgical adhesions can lead to the following conditions.

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1. Small bowel obstruction
2. Chronic abdominal pain
3. Chronic pelvic pain
4. Infertility

MCR #2

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MCR #3

5. The following conditions will increase the certainty of developing postoperative adhesions.

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1. Impairment of plasminogen activator activity
2. Tissue hypoxia
3. Decreased fibrinolysis
4. Tissue trauma

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