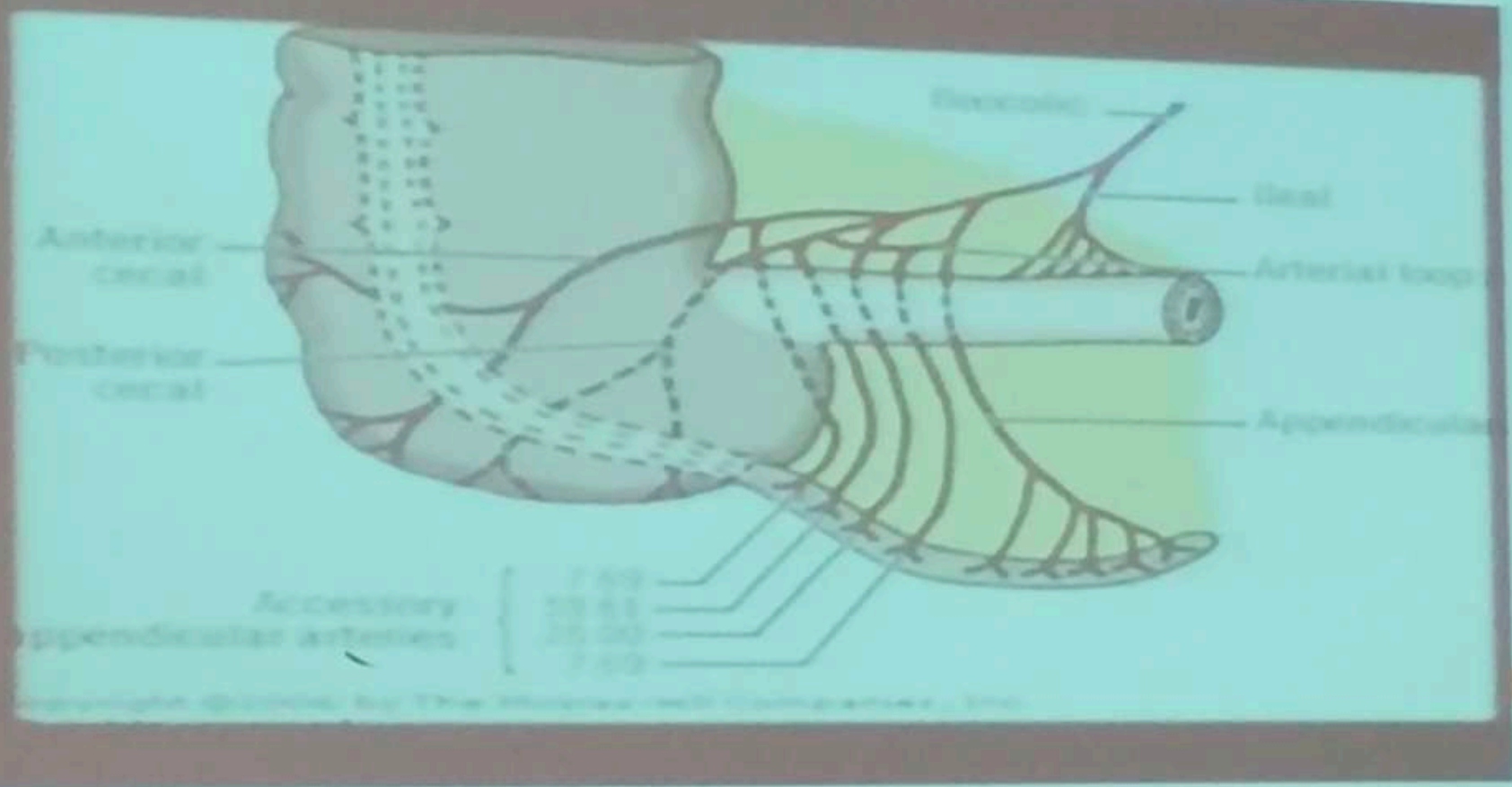
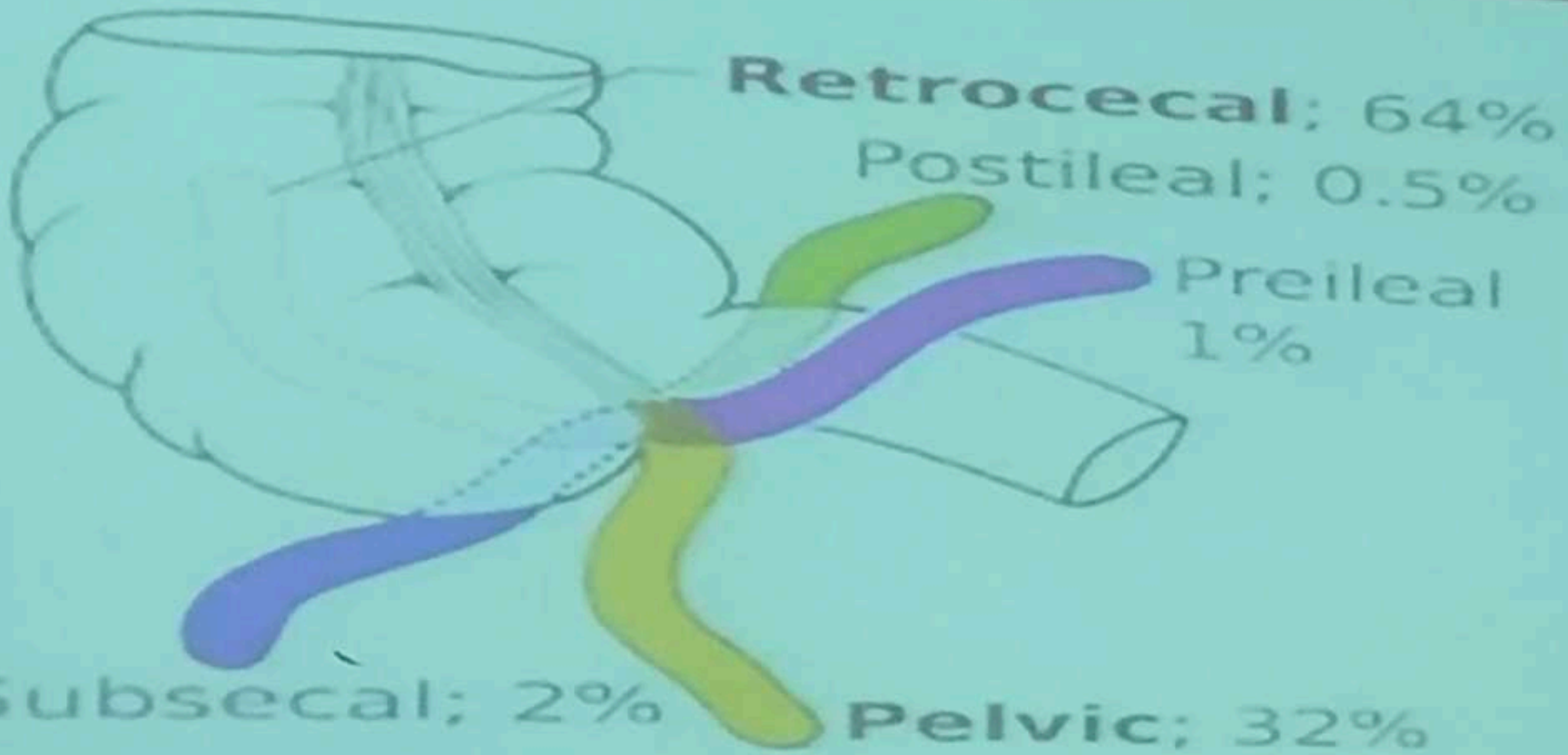
Anatomy and Physiology

- 8th week of embryologic development
- The relationship of the base of the appendix to the cecum remains constant, whereas the tip can be found in a retrocecal, pelvic, subcecal, preileal, or right pericolic position




Retrocecal: 64%
Postileal: 0.5%
Preileal
1%
Subsecal: 2%
Pelvic: 32%

PATHOLOGY AND PATHOGENESIS

- Appendix lumen obstruction leads to congestion within the appendix
- Inflammatory exudate and mucous increases luminal pressure
- Initial stage might resolve in some patients
- Appendix may distend with mucus- mucocele

APPENDICITIS COMPLICATIONS

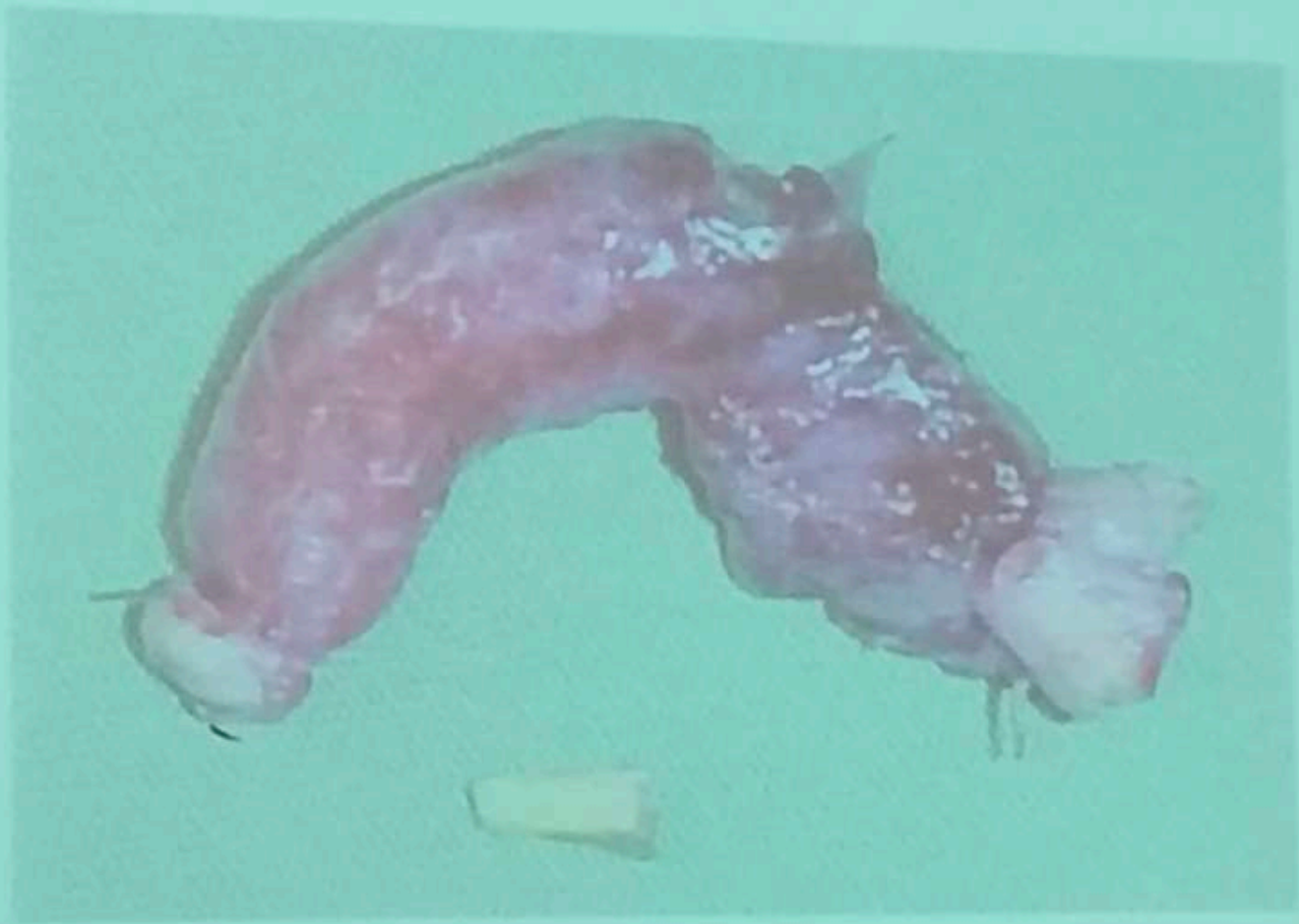
- Gangrenous Appendicitis:
  - Thrombosis of the appendiceal artery and veins
- Perforation:
  - complication rates 58 %
  - perforation rate increased at both ends of the age spectrum
- Peri-appendiceal abscess:
  - most frequent complication
  - peri-appendiceal fibrinous adhesions

- Peritonitis:
  - Bacterial peritonitis in absence of fibrinous adhesions.
  - Escherichia coli
- Bowel Obstruction
- Septic seeding of mesenteric vessels
  - infection along the mesenteric–portal venous system
  - pylephlebitis, pylethrombosis, or hepatic abscess

OBSTRUCTION

- Mucus + Inflammatory exudation → Increases intraluminal Pressure
- Obstructing lymphatic drainage
- Edema+ M.Ulceration+ Bacterial Translocation to the submucosa
- Venous obstruction(cos of further distension)
- Ischemia — Bacterial Invasion — Acute Appendicitis

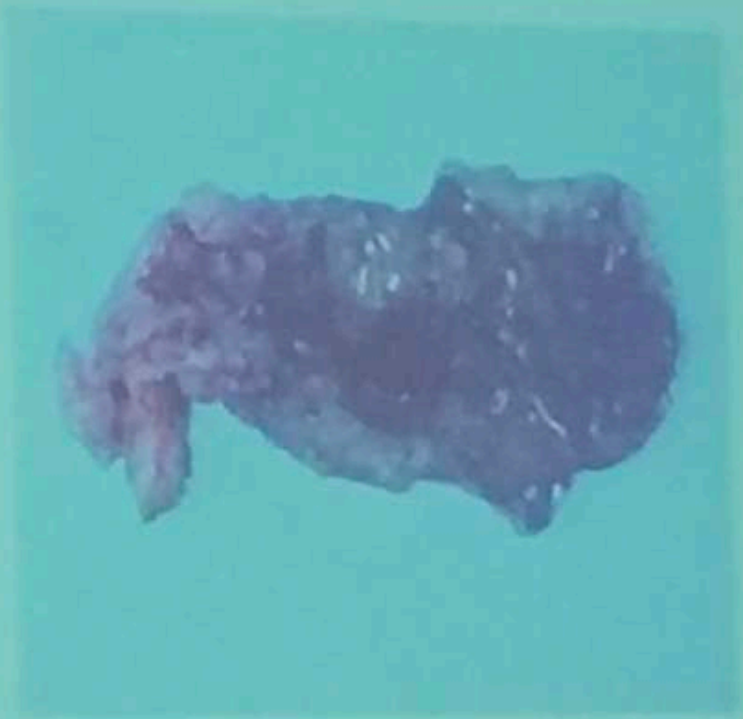
PERFORATED APPENDIX



GANGRENOUS APPENDIX

Thrombosis of Appendicular artery

(as it is an end artery)



PHLEGMONOUS MASS/ PARACAECAL ABSCESS

Greater omentum & loops of small bowel become adherent to the inflamed appendix

↓

Walling off the spread of peritoneal contamination

↓

Phlegmonous Mass / Paracaecal abscess

SIGN TO ELICIT APPENDICITIS

- Rovsing's Sign
- Psoas Sign
- Obturator Sign
- Dunphy's Sign: Any movement (Coughing) causes Pain
- Mc Burney's Point -Tenderness

INVESTIGATION

- TLC- Raised: 10000 to 18000 (Neutrophils >75%)
- If TLC >18000 (suspect perforation)
- Abdominal X-Ray
- Abdominal Ultra sonography
- CT Scan

imp

ALVARADO SCORING SYSTEM SYMPTOMS SCORE

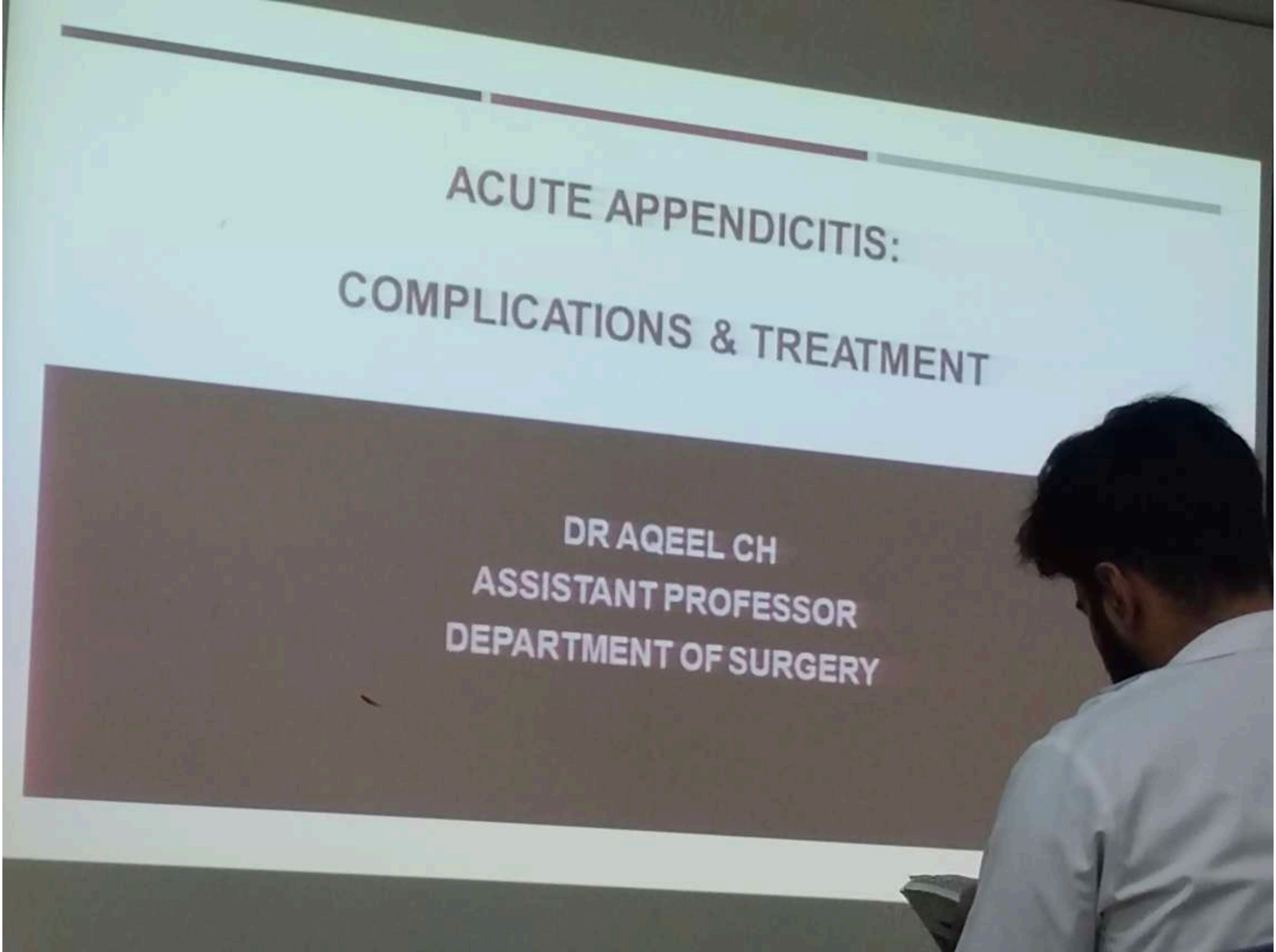
mentrel nemonic

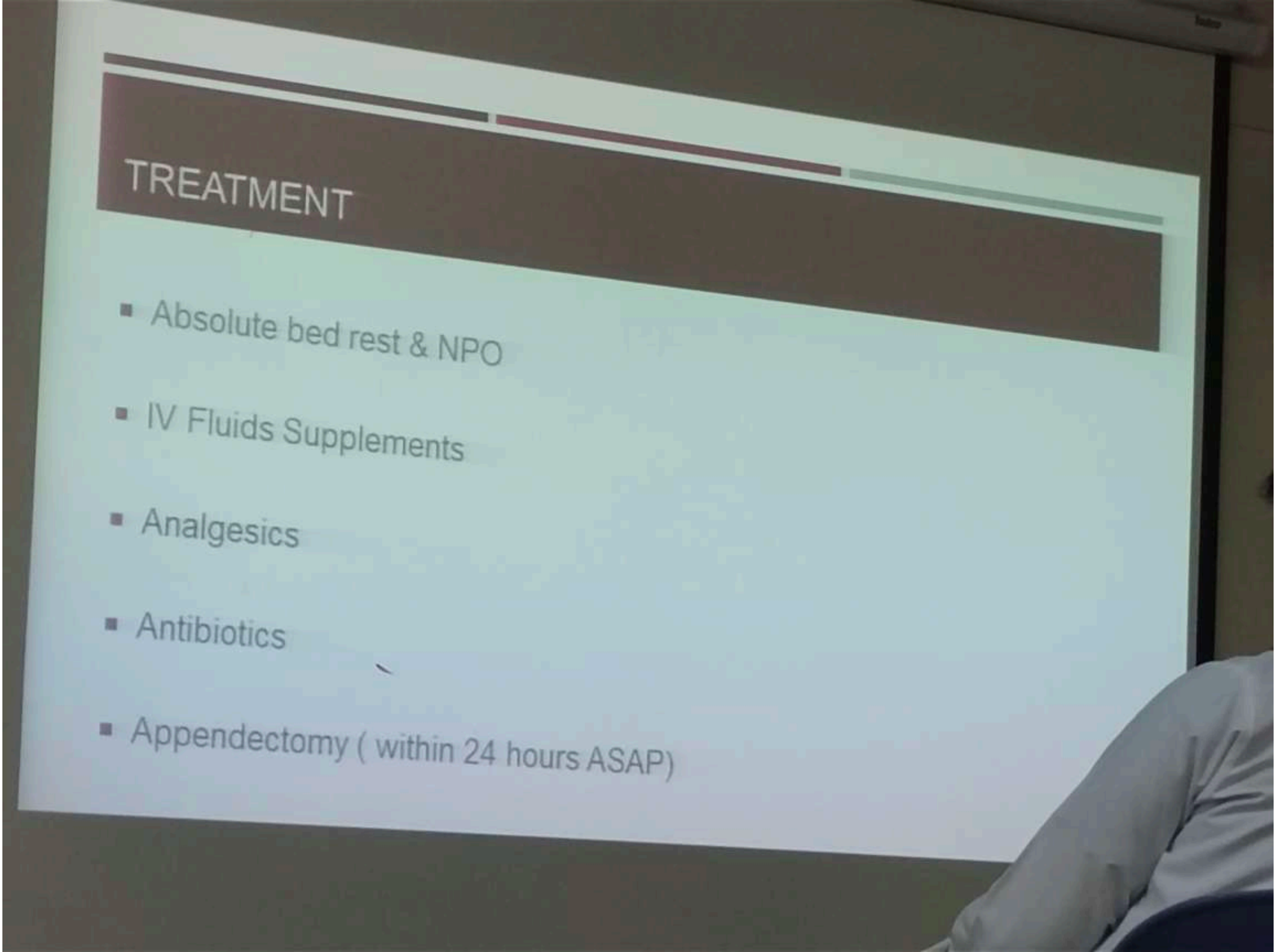
	Manifestations	Value
Symptoms	Migration of pain	1
	Anorexia	1
	Nausea/vomiting	1
Signs	RLQ tenderness	2
	Rebound	1
	Elevated temperature	1
Laboratory values	Leukocytosis	2
	Left shift	1
		Total Points 10

Score	Inference
7-10	Strongly predictive of appendicitis
5-6	Equivocal Radiological investigations
1-4	Appendicitis ruled out

TREATMENT

- Absolute bed rest & NPO
- IV Fluids Supplements
- Analgesics
- Antibiotics
- Appendectomy (within 24 hours ASAP)


ACUTE APPENDICITIS:
COMPLICATIONS & TREATMENT
DR AQEEL CH
ASSISTANT PROFESSOR
DEPARTMENT OF SURGERY


TREATMENT
Absolute bed rest & NPO
IV Fluids Supplements
Analgesics
Antibiotics
Appendectomy (within 24 hours ASAP)

COMPLICATION OF APPENDECTOMY

- Wound Infection
- Intra-abdominal abscess
- Ileus
- Respiratory complication like pneumonia
- Portal Pyaemia
- Adhesive Intestinal Obstruction
- Faecal Fistula
- Richter's Hernia
- DVT & Embolism

INCISIONS IN APPENDECTOMY

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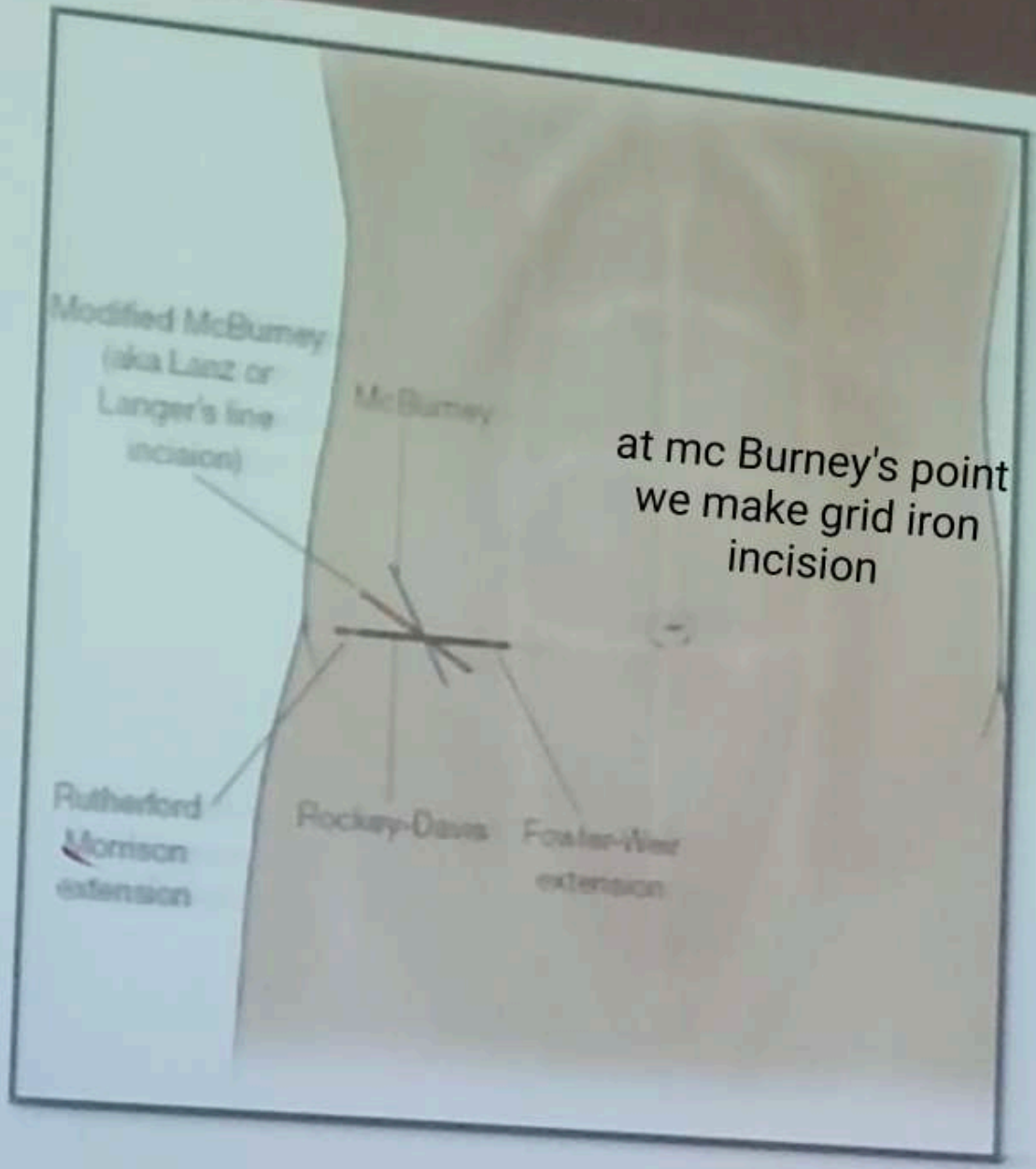

at mc Burney's point we make grid iron incision

COMPLICATION OF APPENDECTOMY

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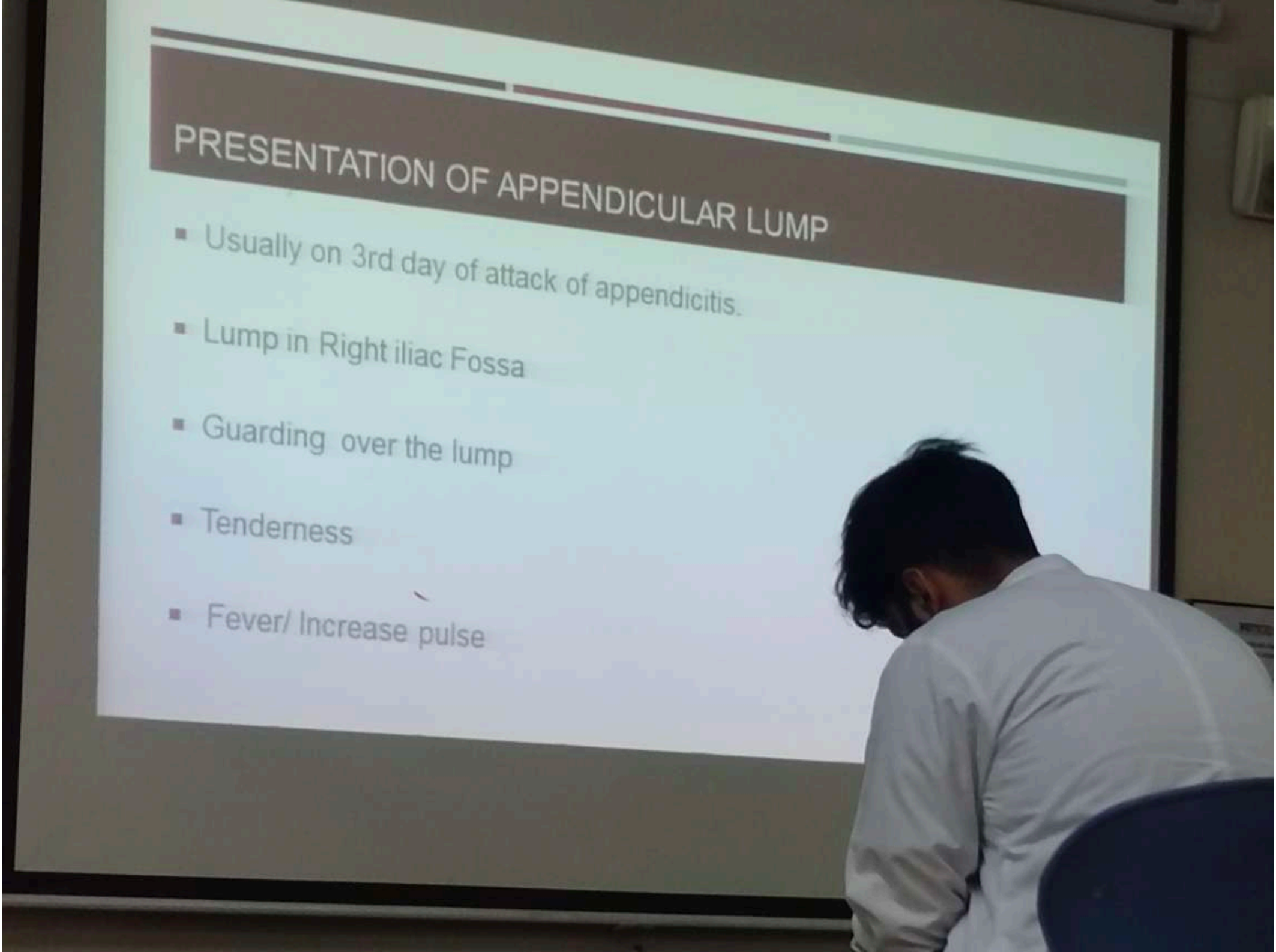
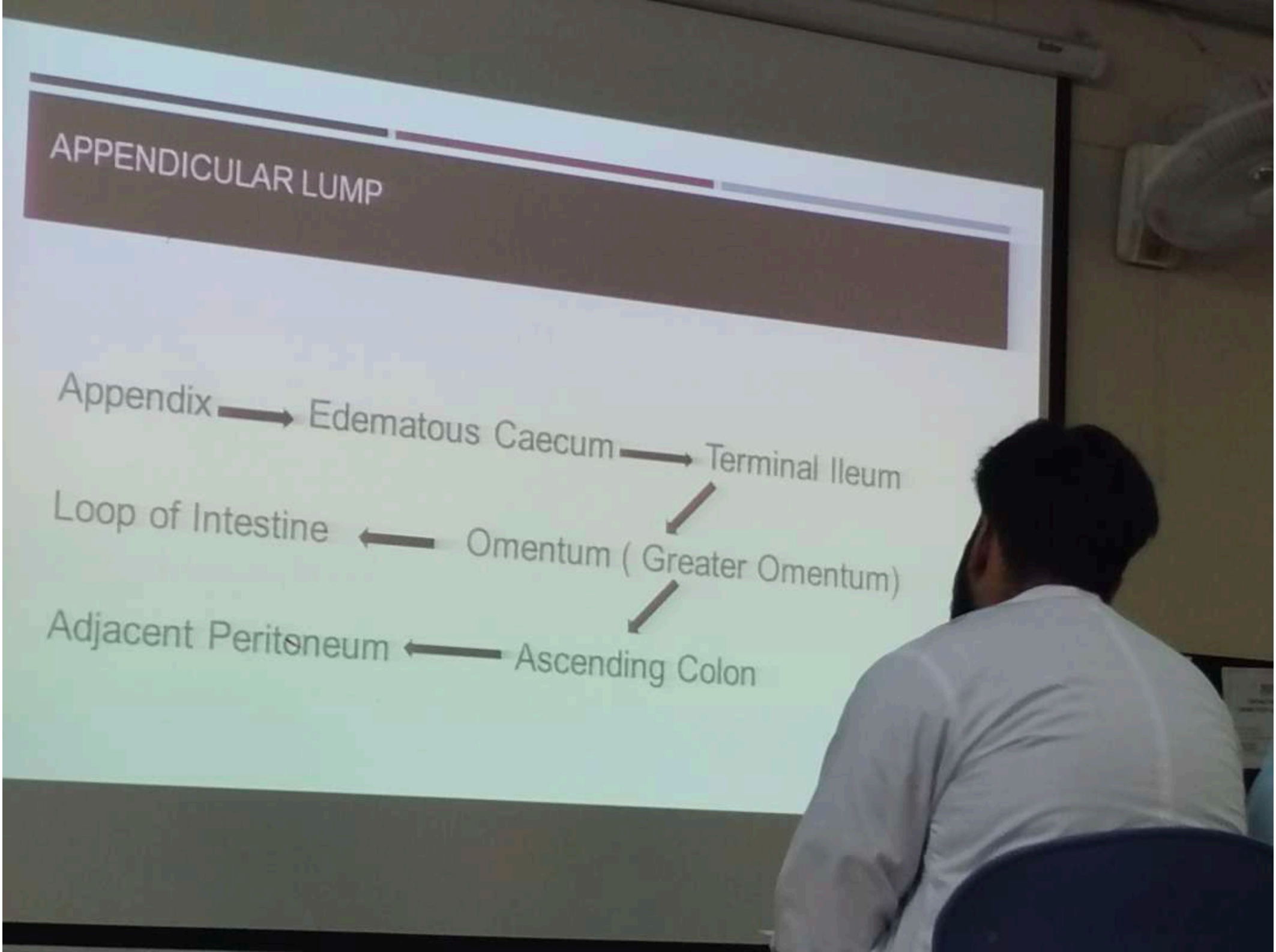

PRESENTATION OF APPENDICULAR LUMP
Usually on 3rd day of attack of appendicitis.
Lump in Right iliac Fossa
Guarding over the lump
Tenderness
Fever/ Increase pulse


APPENDICULAR LUMP
Appendix
Edematous Caecum
Terminal Ileum
Loop of Intestine
Omentum (Greater Omentum)
Adjacent Peritoneum
Ascending Colon

PRESENTATION OF APPENDICULAR LUMP

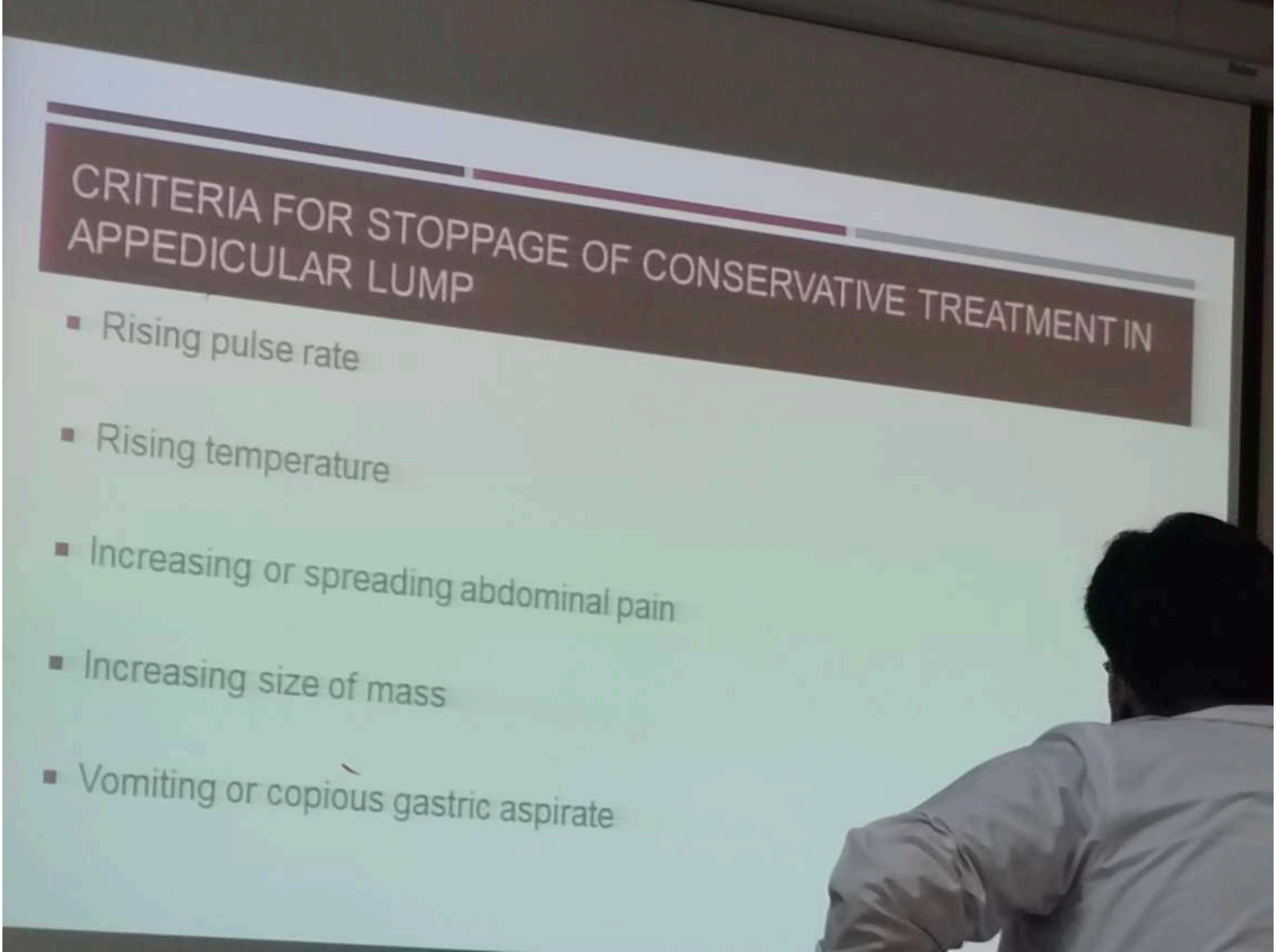
- Usually on 3rd day of attack of appendicitis.
- Lump in Right iliac Fossa
- Guarding over the lump
- Tenderness
- Fever/ Increase pulse

Appendicular Lump- Don't Operate (??)

- Severe adhesion/ Difficult to separate the part
- Bloody and dangerous to operate
- Risk of Faecal fistula
- Risk of iatrogenic injury

OCHSNER- SHERREN REGIMEN

- Ist mark the size of the swelling for further assessment
- NPO & IV Fluid supplements
- Antibiotics, Analgesics
- Temp, Pulse(4 hourly) & Fluid record charting
- Allow oral liquid on subsequent days.


CRITERIA FOR STOPPAGE OF CONSERVATIVE TREATMENT IN APPEDICULAR LUMP
Rising pulse rate
Rising temperature
Increasing or spreading abdominal pain
Increasing size of mass
Vomiting or copious gastric aspirate