Postoperative surgical complications

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Introduction

- Complications in surg. issue for centuries

Can be due to:
- the disease
- the treatment
- process of care
Issues related to errors and complications

- Patient safety
- Process of care
- Quality improvement process
- Communication strategies
- Documentation of care
Classification:

- Local: involving the surgical site
- General: affecting any other system
Time of occurrence postoperatively

- Immediate: within the 1st 24hrs.
- Early: within the 1st 3 weeks.
- Late: Amy subsequent Period.
Surgical site infection :-

- The incidence related to operation type:
  1 - clean – infection Rate 1% or less.
  2 – clean contaminated – less than 10%.
  3 - contaminated (eg. gang.append.) – 15-20%.
  4- Dirty – up to 40%.
Factors :-

- Pre-op: local – pre existing infection. General – malnurished, immunocompromised

- Operative-- Theatre, technique, collection.

- Post-op: - cross- infection- pt or ward.
- New infection ➔ staff
Clinical Features

- Fever
- Pain
Treatment

- Drainage
- Antibiotics → if there is cellulitis
Principles of prophylaxis:

2. Treatment before contamination occurs.
   Examples in: valvular heart disease, colonic surgery.
**Burst Abdomen:**

- Causes: - general as before.
  - local: poor technique, poor blood supply, active disease at site … etc
Post-Op Fistula

- Causes: General as before.
- Local: distal obstruction, poor technique, poor blood supply, active disease at the site, etc.
Treatment :-

- 3 aims: 1- protect skin around fistula
- 2- To Replace the loss.
- 3- To reduce sepsis.
Post-op – pyrexia :-

- Inspect the wound
- Inspect venous cannula site
- Examine the chest.
- Examine the legs
- Examine the Rectum
- Urine culture
- Stool culture
- consider __Drug sensetivity
Complications in minor procedures:

- central venous access lines
- Arterial lines
- Endoscopy
- Tracheostomy
- chest tube insertion
- diagnostic peritoneal lavage (DPL)
- Biopsies
Respiratory system:

- Atelectasis
- Pneumonia
- Aspiration pneumonitis
- Pulmonary embolism
- A cute Respiratory Distress syndrome (ARDS)
Inclusion criteria for the Acute Resp.D.S

- Acute onset
- Predisposing condition
- Bilateral infiltrates
- Pulmonary artery occlusion pressure < 18 mm Hg
- No clinical evidence of right heart failure
Renal system:

- Renal failure – pre, intrinsic and post-renal
- Oliguria
- Acute tubular necrosis
- Poor flow
- Direct renal toxins
Cardiac system :-

- Arrhythmias – atr.fib.
- Ischemia -(MI) → Hypertension
- post-op cardiac Failure
Abdominal: compartment syndrome

- causes: Multiple trauma, Burns, Retopritoneal injuries, Ruptured Abd.aor.Areurysm...etc
- Progressive Abd.Distension, oligurea..
- Measurement of ABD.PRE. → bladder pressure thro Foly’s cath. → 100 ml NS.
- Pressure more than 20 mmHg → raised Intra-Abd.P.
- Pressure more than 25-30 with at least one symptom → ACS.
- Treatment → open Abd. incisions.
Drains :-

- Indications
- Types
- complications :- open – penrose drain can introduce infection.
- Rigid \(\rightarrow\) erodes
- close suction \(\rightarrow\) anastomotic leakage.
# Abdominal Surgery Complications

<table>
<thead>
<tr>
<th>Time</th>
<th>Local</th>
<th>General</th>
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</thead>
<tbody>
<tr>
<td>0 hours to 24 hours</td>
<td>Reactionary haemorrhage</td>
<td>Asphyxia (&lt; Inhaled vomit)</td>
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<tr>
<td>2nd day to 3 weeks</td>
<td>Paralytic ileus</td>
<td>Collapse (&lt; Bronchopneumonia)</td>
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<tr>
<td></td>
<td>Infection</td>
<td>Pulmonary (&lt; Embolus)</td>
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<tr>
<td></td>
<td>Wound</td>
<td>Urinary (&lt; Retention)</td>
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<tr>
<td></td>
<td>Peritonitis</td>
<td>Suppression of production (tubular necrosis)</td>
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<td></td>
<td>Pelvic</td>
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<tr>
<td></td>
<td>Subphrenic</td>
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<tr>
<td></td>
<td>Secondary haemorrhage</td>
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<tr>
<td></td>
<td>Dehiscence</td>
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<tr>
<td></td>
<td>Wound</td>
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<tr>
<td></td>
<td>Anastomosis</td>
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<tr>
<td></td>
<td>Obstruction due to fibrinous adhesions</td>
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</tr>
<tr>
<td>Late</td>
<td>Obstruction due to fibrous adhesions</td>
<td>After extensive resections or gastrectomy</td>
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<tr>
<td></td>
<td>Incisional hernia</td>
<td>Anaemia</td>
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<td>Persistent sinus</td>
<td>Vitamin deficiency</td>
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<td>Recurrence of original lesion (e.g. stomal ulcer or malignancy)</td>
<td>Steatorrhoea and/or diarrhoea</td>
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<tr>
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<td>Osteoporosis</td>
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<tr>
<td></td>
<td></td>
<td>Dumping syndrome</td>
</tr>
</tbody>
</table>
Thank You