Gastrointestinal & Genitourinary Emergencies

Lesson Goal

- Recognize, assess & provide care to patients with abdominal cavity injuries

Learning Objectives

- Discuss different causes of nontraumatic abdominal emergencies
- Discuss signs & symptoms of nontraumatic abdominal emergencies
- Describe assessment of patient with nontraumatic abdominal pain
Learning Objectives

- Identify abdominal quadrants
- Identify hollow organs in abdomen
- Identify solid organs in abdomen
- Discuss kidney function

Learning Objectives

- Discuss visceral pain of GI tract
- Discuss somatic pain of GI tract
- Describe emergency care for patient with nontraumatic abdominal pain

Introduction

- Abdominal problems can be very painful
- Role of EMT
  - Transport patient for evaluation
  - Provide supportive care
  - Manage life threats
  - Make patient as comfortable as possible
Abdominal cavity houses organs of several systems

- Organs are protected by layers of abdominal wall
- Peritoneum can become very painful when inflamed
**Digestive System**

- Hollow organs
  - Stomach & intestines
  - May become obstructed or perforated

- Solid organs
  - Liver, pancreas
  - Highly vascular
  - Subject to injury by disease or toxins

**Urinary System**

- Filters blood to remove wastes

- Kidneys—solid organs in retroperitoneal space
Urinary System

- Kidneys remove wastes, electrolytes & water from blood, forming urine
- Ureters drain urine from kidneys to bladder
- Bladder is emptied through urethra

Bacteria may enter urinary system through urethra

Excessive salts may form stones in kidney that can obstruct ureters

Female Reproductive System

- Uterus
- Ovaries
- Fallopian tubes
  - Ova are released during ovulation
  - Fertilization occurs in fallopian tube
Female Reproductive System

- Normal implantation
- Ectopic pregnancy

Blood Vessels

- Largest blood vessels travel through abdomen
- Abdominal organs are supplied by blood vessels in mesentery
- Embolism of mesenteric arteries can cause tissue death in affected organ
General Assessment

- Scene size-up
  - Safety
  - Clues
- BSI
- General impression

Initial Assessment

- Airway
  - Be alert to vomiting
- Breathing
  - Affected by shock & abdominal pain
- Circulation
  - Assess pulse
  - Determine presence of bleeding

History & Physical Examination

- Stabilize life threats in initial assessment
- Conscious patients
  - Focused history
  - Focused physical exam
Pain

- Visceral
  - Poorly localized, vague
  - Typical of hollow organs

- Somatic
  - Well localized
  - More typical of solid organs

- Referred

Referred Pain

History

- Onset
- Provocation/palliation
- Quality
- Radiation
- Severity
- Time
History

- SAMPLE history
  - Check for specific medications
  - Past history of abdominal complaints
  - Last oral intake
    - When
    - What

Vital Signs

- Baseline VS
- Repeat VS
- Postural (orthostatic) vital signs
  - Positive
    - ↓ Systolic BP >20 mm Hg
    - ↑ Pulse >20 bpm

Physical Exam

- Brief & focused
- Visualize abdomen
- Palpate abdomen
### Significance of Pain Location

<table>
<thead>
<tr>
<th>RUQ</th>
<th>Epigastrium</th>
<th>LUQ</th>
<th>RLQ</th>
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<tbody>
<tr>
<td>Gallbladder Disease</td>
<td>Ulcers</td>
<td>Splenic problems</td>
<td>Appendicitis</td>
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<tr>
<td>Hepatitis</td>
<td>Pancreatitis</td>
<td>Stomach problems</td>
<td>Ovarian problems</td>
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<tr>
<td>Pneumonia</td>
<td>Myocardial function</td>
<td>Pneumonia</td>
<td>Ectopic pregnancies</td>
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### Suprapubic LLQ Flank & Back Pain

<table>
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<th>Suprapubic</th>
<th>LLQ</th>
<th>Flank &amp; Back Pain</th>
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<tr>
<td>Bladder infection</td>
<td>Diverticulitis</td>
<td>Kidney problems</td>
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<td>Uterine problems; miscarriage</td>
<td>Ovarian problems</td>
<td>Aortic aneurysm</td>
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### General Treatment

- Mainly supportive
- Position of comfort
- Gentle transport
- Treat for shock if indicated
- Protect airway if patient vomits
- Give nothing by mouth
Summary

- Abdominal disorders can be painful & life threatening
- Identify & intervene for life-threatening conditions
- Provide supportive care