**IQRA NATIONAL UNIVERSITY**

**DEPARTMENT OF ALLIED HEALTH SCIENCES**

**Final-Term Examination**

**DPT 8th semester**

**Course Title: Surgery II Instructor: Dr Sara Naeem**

**Time: 6 Hours Max Marks:50**

**Q1. Differentiate between communicating and non- communicating hydrocephalus. Give prognosis of hydrocephalus.**

**DIFFERENCE BETWEEN COMMUNICATING AND NON-COMMUNICATING HYDROCEPHALUS**

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| **COMMUNICATING HYDROCEPHALUS*** The accumulation of cerebrospinal fluid within the brain causes increased pressure inside the skull.
* This condition is known as hydrocephalus
* There are four types of hydrocephalus.
* 1) Congenital.
* 2) Acquired.
* 3) Benign external hydrocephalus (communicating).
* 4) Normal pressure hydrocephalus (non-communicating).
* Benign external hydrocephalus is also known as non-obstructive hydrocephalus.
* There is disruption of CSF flow between ventricles and subarachnoid space.
* In communicating hydrocephalus the CSF can still flow between the ventricles, which will remain open.
* In this case the CSF accumulation is outside the brain.
* It normally occurs at birth or soon after birth.
* This condition is corrected by itself within 18 months of the age.
 | **NON-COMMUNICATING HYDROCEPHALUS*** The accommodation of cerebrospinal fluid within the brain causes increased pressure inside the skull.
* This condition is known as hydrocephalus
* There are four types of hydrocephalus.
* 1) Congenital.
* 2) Acquired.
* 3) Benign external hydrocephalus (communicating).
* 4) Normal pressure hydrocephalus (non-communicating).
* Normal pressure hydrocephalus is also known is obstructive hydrocephalus.
* The blockage of CSF along one or more of the narrow passages connecting the ventricles.
* It can be caused by infection, tumour, head trauma, subarachnoid haemorrhage or post-surgery complications.
* It can also be developed without these factors.
* It can happen to people at any age but elderly are most commonly affected.
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**PROGNOSIS:**

* The prognosis for hydrocephalus depends on the cause, treatment, extent of symptoms and diagnosis.
* Some patients show good improvement while others do not show any improvement.
* As soon as the hydrocephalus is diagnosed there is better chance for successful treatment.
* If there is any neurological damage occurred that is unfortunately irreversible to treat while other symptoms such as headaches may disappear immediately if symptoms are related to elevated pressure.

**Q2. Identify population at risk of developing nephrolithiasis. Give surgical management of kidney stones.**

**POPULATION AT RISK OF DEVELOPING NEPHROLITHIASIS;**

* If someone had kidney stones they are more likely to develop nephrolithiasis.
* Dehydration: Not consuming enough water daily can increase the risk of kidney stones.
* Obesity: People with high body mass index BMI and weight gain have higher risk of kidney stones.
* High protein, sugar and sodium can increase the risk of some types of kidney stones.
* Other medical conditions can also contribute in nephrolithiasis such as cystinuria, hyperparathyroidism, urinary tract infections and renal tubular acidosis.
* Geographical location: People living in a warm, dry climates and those who sweat a lot maybe eight higher risk than others.

**SURGICAL MANAGEMENT OF KIDNEY STONES:**

* **URETEROSCOPIC SURGERY:**

: A small tube is placed which extends from the bladder passing you later into the kidney, it provides immediate relief open obstructed kidney.

This tube is known as ureteral stent.

* **PERCUTANEOUS NEPHROLITHOTOMY:**

This technique is used for treating larger kidney stones.

Stones can be over 2 cm in diameter.

It involves keyhole surgery that is performed through a 1 cm incision in the skin.

* **OPEN SURGERY:**

A wide incision in the patient’s abdomen or the side to reach the kidney is done to remove kidney stones.

**Q3. Give lab and radiological investigations for intestinal obstruction. what can be possible surgical management of intestinal obstruction.**

**LAB INVESTIGATIONS:**

1. FBC (full blood count)
2. ABGs (arterial blood gas)
3. BUSE (blood urea and serum electrolyte)
4. ESR and CRP are optional.

**RADIOLOGICAL INVESTIGATIONS:**

1. AXR (abdominal x-ray)

Air fluid level and masses.

1. CT (computed tomography)

Level, extent and cause of obstruction.

1. Colonoscopy and endoscopy are optional.

**CONSERVATIVE MANAGEMENT:**

* IV FLUIDS: Normal saline for dehydration.
* NASOGASTRIC TUBE: For the decomposition of dilated bowl.
* ELECTROLYTES CORRECTION: Can be prescribed after test results.
* ANALGESICS: For pain relief.

**NON-CONSERVATIVE MANAGEMENT:**

* Colostomy: Removal of the damaged part of the colon and the cut end diverted to an opening in the abdominal wall which is done through surgery.
* Resection: It is the process of cutting out tissue or part of an organ.
* Lysis of offending adhesions.
* Removal of foreign bodies.
* Hernia repairing.

**Q4**. **What are the clinical manifestations of subarachnoid hemorrhage. Explain GCS .**

**SUBARACHNOID HEMORRHAGE**

**DEFINITION:**

Subarachnoid hemorrhage is bleeding between brain and subarachnoid space.

This space contains cerebrospinal fluid which serves as a cushion protecting the brain from injury.

Hemorrhage in this area can cause sudden and severe headache, paralysis, and even death.

**SIGNS AND SYMPTOMS:**

* Nausea and vomiting
* Nuchal rigidity
* Photophobia
* Loss of vision
* Loss of consciousness
* Blurred vision
* Neurological deficits

**GLASCOW COMA SCALE:**

Glasgow coma scale is used to describe the level of consciousness in a person who had a traumatic brain injury.

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| **BEHAVIOUR** | **RESPONSE** |
| Eye Opening Response | 4. Spontaneously3. To speech2. To pain1. No response |
| Verbal Response | 5. Oriented to time, person and please4. Confused3. In appropriate words2. Incomprehensible sounds1. No response |
| Motor Response | 6. Obeys command5. Moves to localised pain4. Flex withdraw from pain3. Abnormal flexion2. Abnormal extension1. No response |

* Glasgow coma scale 15, no motor deficit
* GCS 13 to 14, no more motor deficit
* GCS 13 to 14, with motor deficit
* GCS 7 to 12, with or without a motor deficit
* GCS 3 to 6, with or without motor deficit

**Q5. Enumerate vital clinical signs for confirmation of appendicitis. How can you manage a patient with acute appendicitis.**

**CLINICAL SIGNS OF APPENDICITIS**

* BP 110/70
* Pulse 106
* Temperature of 100 Fahrenheit
* Tenderness of the right lower abdominal quadrant with the rigidity and rebound tenderness
* Nausea
* Vomiting
* Constipation or diarrhea
* Loss of appetite
* Inability to pass faces
* Painful urination
* Severe cramps

**MANAGEMENT OF ACUTE APPENDICITIS:**

* Liquid diet is given
* IV fluids are injected
* Antibiotics are given
* Pain relievers or painkillers are given to the patient
* Needle drainage or surgery to drain an abscess
* Surgery is done to remove appendix.