***IQRa NATIONAL UNIVERSITY***

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**Question #1: Differentiate between communicating and non- communicating hydrocephalus. Give prognosis of hydrocephalus**

**Answer:**

**Hydrocephalus:** Abnormal dilatation of the cerebral ventricular system

Hydrocephalus can should be differentiated from disorders producing

Ventricular enlargement secondary to cerebral atrophy

**Differentiate between communicating and non-communicating hydrocephalus:**

**Communicating hydrocephalus:**Benign External Hydrocephalus (Communicating)

Benign external hydrocephalus (also referred to as external hydrocephalus) occurs when an accumulation of CSF is found outside the brain, which usually presents itself at birth or soon thereafter. This condition usually corrects itself within 18 months of age

* **Communicating hydrocephalus:** (non obstructive) CSF circulation blocked at the level of the basal cisterns.the subarachnoid space or the level of arachnoid granulation’
* **Cerebellar subarachnoid** space; hemorrhage, infection
* **Basal cisterns; hemorrhage ;** infection; neoplastic seeding
* **Tentorial haitus:** Arnold chiari malformation achondroplasia
* **Cerebral** subarachnoid space; hemorrhage. Infection ,increase cerebrospinal fluid protein ,subdural hematoma. Meningeal infiltration
* **Arachnoid granulation:** congenital absence, trauma, hemorrhage, infection, subdural hematoma.   
    
    
  non **Communicating hydrocephalus:**Normal Pressure Hydrocephalus (Non-Communicating)
* Can happen to people at any age, but it is most common among the elderly. It may result from a subarachnoid haemorrhage, head trauma, infection, tumour, or complications of surgery.
* However, many people develop normal pressure hydrocephalus even when none of these factors.
* Also called Obstructive hydrocephalus.
* **Non** communicating (obstructed) the normal pathways of CSF flow are for some reason occluded such as aqueduct stenosis or as a result of a local compression from a tumor (enlargement of ventricles proximal to the block)
* **Lateral** ventricle:neoplasm ,ventriculitis
* **Foramina**of monro:neoplasm ventriculitis,hemorrhage,tuber, shunt complication
* Third ventricle:  
   ANTERIOR:craniopharyngioma,glioma,sellar mass,aneurysm  
    
   POSTERIOR:pineal neoplasm,quadrigeminal cyst, galenic artriovenous   
  malformation ,arachnoid cyst
* **Aqueduct:** ventriculitis,hemorrhage,quaductal stenosis Arnold chiari malformation, neoplasm, infection

**Fourth** ventricle:ventriculitis, hemorrhage, dandy walker cyst, neoplasm, Arnold chiari malformation   
  
**prognosis of hydrocephalus:**The prognosis for hydrocephalus depends on the cause, the extent of symptoms and the timeliness of diagnosis and treatment. Some patients show a dramatic improvement with treatment, while others do not. In some instances of normal pressure hydrocephalus, dementia can be reversed by shunt placement. Other symptoms, such as headaches, may disappear almost immediately if the symptoms are related to elevated pressure.

In general, the earlier hydrocephalus is diagnosed, the better the chance for successful treatment. The longer the symptoms have been present, the less likely it is that treatment will be successful. Unfortunately, there is no way to accurately predict how successful surgery will be for each individual. Some patients will improve dramatically, while others will reach a plateau or decline after a few months.

Shunt malfunction or failure may occur. The valve can become clogged or the pressure in the shunt may not match the needs of the patient, requiring additional surgery. In the event of an infection, antibiotic therapy may be needed and likely temporary removal of the shunt and replacement by a drain until the infection clears. The shunt can then be re-implanted. A shunt malfunction may be indicated by headaches, vision problems, irritability, fatigue, personality change, loss of coordination, difficulty in waking up or staying awake, a return of walking difficulties, mild dementia or incontinence. In infants, the symptoms of shunt malfunction can include the above as well as vomiting, inappropriate head growth and/or sunsetting eyes. When a shunt malfunctions, a surgery is often needed to replace the blocked or malfunctioning portion of the shunt system. Fortunately, most complications can be dealt with successfully.

 Failure to catch hydrocephalus on time and treat it accordingly may lead to long-term neurological deficits that require multidisciplinary medical teams to assist patients with developmental and lasting cognitive impairment. Neurological damage that may have occurred prior to treatment is unfortunately irreversible and can have a significant impact on functional social outcomes such as social integration, schooling, and marriage.

**QUESTION#2 Identify population at risk of developing nephrolithiasis. Give surgical management of kidney stones.  
  
ANSWER#2**Factors that increase your risk of developing kidney stones include:

* **Family or personal history.** If someone in your family has had kidney stones, you're more likely to develop stones, too. If you've already had one or more kidney stones, you're at increased risk of developing another.
* **Dehydration.** Not drinking enough water each day can increase your risk of kidney stones. People who live in warm, dry climates and those who sweat a lot may be at higher risk than others.
* **Certain diets.** Eating a diet that's high in protein, sodium (salt) and sugar may increase your risk of some types of kidney stones. This is especially true with a high-sodium diet. Too much salt in your diet increases the amount of calcium your kidneys must filter and significantly increases your risk of kidney stones.
* **Obesity.** High body mass index (BMI), large waist size and weight gain have been linked to an increased risk of kidney stones.
* **Digestive diseases and surgery.** Gastric bypass surgery, inflammatory bowel disease or chronic diarrhea can cause changes in the digestive process that affect your absorption of calcium and water, increasing the amounts of stone-forming substances in your urine.
* **Other medical conditions** such as renal tubular acidosis, cystinuria, hyperparathyroidism and repeated urinary tract infections also can increase your risk of kidney stones.
* **Certain supplements and medications,** such as vitamin C, dietary supplements, laxatives (when used excessively), calcium-based antacids, and certain medications used to treat migraines or depression, can increase your risk of kidney stones

**surgical management of kidney stones:  
  
 open surgery procedure;** ureterolithotomy

Cystolithotomy

Pyelolithtomy

Nephrolithotomy

A partial or total nephrectomy

  **open surgery**

The surgeon uses an incision in the person's abdomen or side to reach the kidney and remove the stones

**Question#3 Give lab and radiological investigations for intestinal obstruction. what can be possible surgical management of intestinal obstruction.  
  
Answer#3** Any condition that interferes with normal propulsion and passage of intestinal contents

**Lab and radiological investigation for intestinal obstruction are following**

Lab investigation   
 **Physical exam.** Your doctor will ask about your medical history and your symptoms. He or she will also do a physical exam to assess your situation. The doctor may suspect intestinal obstruction if your abdomen is swollen or tender or if there's a lump in your abdomen. He or she may listen for bowel sounds with a stethoscope

FBC

ABGs

BUSE

ESR & CRP are optional

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* **X-ray.** To confirm a diagnosis of intestinal obstruction, your doctor may recommend an abdominal X-ray. However, some intestinal obstructions can't be seen using standard X-rays.
* **Computerized tomography (CT).** A CT scan combines a series of X-ray images taken from different angles to produce cross-sectional images. These images are more detailed than a standard X-ray, and are more likely to show an intestinal obstruction.
* **Ultrasound.** When an intestinal obstruction occurs in children, ultrasound is often the preferred type of imaging. In youngsters with an intussusception, an ultrasound will typically show a "bull's-eye," representing the intestine coiled within the intestine.
* **Air or barium enema.** An air or barium enema is basically enhanced imaging of the colon that may be done for certain suspected causes of obstruction. During the procedure, the doctor will insert air or liquid barium into the colon through the rectum. For intussusception in children, an air or barium enema can actually fix the problem most of the time, and no further treatment is needed.

Surgical management for intestinal obstruction   
  
**surgical resection:** Removal of the obstruction is necessary when there is a mass, such as a tumor.

* **Removal of adhesions:** If you have scar tissue squeezing your intestines from the outside, this often requires careful incisions to cut them away, although scar tissue can return again.
* **Stent placement:**A stent, which is a tube that holds the intestine open, may be placed inside the intestine to allow passage of food and stool and to prevent another blockage. This may be necessary when a bowel obstruction is recurrent or when the intestines are severely damaged.3﻿
* **Colostomy/ ileostomy:**If your intestines are damaged or inflamed, a permanent or temporary ileostomy or [colostomy](https://www.verywellhealth.com/what-you-need-to-know-about-colostomy-surgery-1941708), which is an artificial opening in your abdomen for waste or stool evacuation, may be needed. Sometimes, these are temporary structures needed to prevent a severe gastrointestinal infection from spreading throughout the body. However, it is possible that the ends of the intestines cannot be reconnected, and these openings may be needed for the long term.
* **Revascularization:** Ischemic colitis may require revascularization, which is repair of the blocked blood vessels that supply blood to the intestines.  
    
    
    
    
  **Question#4 What are the clinical manifestations of subarachnoid hemorrhage. Explain GCS .  
    
  Answer#4**
* **Clinical manifestation of subarachnoid hemorrhage  
    
   Nausea and vomiting**

**Nuchal rigidity**

**Photophobia**

**Blurred vision**

**Loss of vision**

**Neurological deficits**

**Loss of consciousness**bleeding usually results from the rupture of an abnormal bulge in a blood vessel (aneurysm) in your brain. Sometimes bleeding is caused by trauma, an abnormal tangle of blood vessels in your brain (arteriovenous malformation), or other blood vessel or health problems.

Untreated, a subarachnoid hemorrhage can lead to permanent brain damage or death.

**Explain Glasgow coma scale (GCS)  
  
definition:** the Glasgow coma scale (GCS)is a neurological scale which aims to give a reliable way of recording the conscious state of a person.

1 Glasgow coma scale 15, no motor deficit

2 GCS 13 to 14, no motor deficit

3 GCS 13 to 14, with motor deficit

4 GCS 7 to 12, with or without motor deficit

5 GCS 3 to 6, with or without motor deficit

**Question#5** **Appendicitis:**

Appendicitis is an inflammation of the appendix, a finger-shaped pouch that projects from your colon on the lower right side of your abdomen.

Appendicitis causes pain in your lower right abdomen.

However, in most people, pain begins around the navel and then moves to appendics.

**vital clinical signs for confirmation of appendicitis:**

Commonly we use ultra sound to confirm the appendicitis

Perforated appendix is demonstrated when the appendicular wall has ruptured producing fluid or a newly formed abscess. The appearance is hyper echoic with an echo-poor abscess surrounding the appendix

Appendicitis usually is suspected on the basis of a patient's history and physical examination.

* white blood cell count
* Urinalysis
* Abdominal X-ray
* Barium enema
* Ultrasonography
* Computerized tomography (CT) scan

And laparoscopy also may be helpful in diagnosis

In an international systematical review of appendicitis scores, found that the most common features are elevated whit blood count (WBC), right lower quadrant paintenderness, combination of anorexia, nausea or vomiting, reboundtenderness, and migration of pain to the right lower quadrant.

**How can you manage a patient with acute appendicitis?**

Depending on your condition, your doctor's recommended treatment plan for appendicitis may include one or more of the following:

Surgery to remove your appendix.

Needle drainage or surgery to drain an abscess.

Antibiotics.

Pain relievers.

IV fluids.

liquid diet

Appendectomy via open laparotomy or laparoscopy is the standard treatment for acute appendicitis. However, intravenous antibiotics may be considered first-line therapy in selected patients.

Surgical removal of the appendix, via open laparotomy or laparoscopy, is the standard of therapy for acute appendicitis.

Initial antibiotic therapy may precede surgery for some. More recent evidence suggests antibiotics may be used as the sole therapy in those with uncomplicated appendicitis, thus avoiding surgery.

Recommended first-line imaging consists of point of care or formal ultrasonography.

Appendectomy via open laparotomy or laparoscopy is the standard treatment for acuteappendicitis.

However, intravenous antibiotics may be considered first-line therapy in selected patients.

\***THANK YOU\***

***Mam please keep in mind my CGPA is extremely in low grade im requesting you to with huge respect to focus on my marks,***

***I need little more marks to elevate my CGPA im requesting again I want to improve my grades, thank you mam***