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## ID# 13402

## DPT 8TH SEMESTER

## SUBJECT : SURGERY

## INSTRUCTOR : Dr. SARA NAEEM

## Q1: DDIFFERENTIATE BETWEEN COMMUNICATING AND NON \_ COMMUNICATING HYDROCEPHALUS GIVE PROGNOSIS OF HYDROCEPHALUS ?

Definition : Hydrocephalus is a condition in which an accumulation of cerebrospinal fluid (CSF) occurs within the brain.

Communicating hydrocephalus :

 Communicating hydrocephalus, also known as non obstructive hydrocephalus, is caused by impaired CSF reabsorption in the absence of any obstruction of CSF flow between the ventricles and subarachnoid space. when the flow of cerebrospinal fluid (CSF) is blocked after it exits the ventricles. This form is called communicating, because the CSF can still flow between the ventricles,

which remain open.

**Causes are due to:**

*  Post-hemorrhage
*  Bacterial Meningitis
*  Malignant Meningitis
*  Increased Venous Pressure

Non- communicating hydrocephalus :

Non-communicating hydrocephalus, also

called "obstructive" hydrocephalus, occurs

when the flow of CSF is blocked along one

or more of the narrow pathways connecting

the ventricles.

** Causes include**:

*  Congenital
*  Acquired

Management of hydrocephalus **:**

Managing medical treatment and care as well as maintaining quality of life for your loved one or yourself is part of living with a chronic neurologic condition. Hydrocephalus affects cognitive, social and physical development and abilities in diverse ways.

## Prognosis of hydrocephalus :

 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.

## Q2. Identify the population at risk of developing nephrolithiasis . give surgical management of kidney stones ?

## Population at risk of developing nephrolithiasis:

Kidney stones are more common in men, and in adults between 20 and 50 years of age, but very rare in children. It is most common in adults who have a low fluid intake and consequently produce little urine, which can contain high amounts of stone-forming substances.

### Surgical management of kidney stones :

# Shockwave lithotripsy (SWL)

 is a popular choice for the management of small- to medium-sized kidney stones, and is generally performed as an outpatient procedure with the patient under general anesthesia .Shockwave lithotripsy ( SWL).

 SWL works by focusing intense sound waves on the stone, causing the stone to shatter while minimizing the effect on surrounding tissue. The small pieces of stone then wash out of the kidney with normal urine flow, usually with little or no discomfort. SWL is highly effective at treating most stones in the kidney and ureter.

## Advantages of SWL include:

* Excellent success rate for most small- to medium-sized stones
* Outpatient procedure
* Minimal postoperative discomfort
* No incisions or invasive procedures
* Easy and fast scheduling

Ureteroscopy and laser lithotripsy :

Ureteroscopy and laser lithotripsy are typically performed as a same-day procedure with the patient under general anesthesia. During the procedure, the urologist passes a small scope through the urinary opening into the bladder and from there up into the ureter, the small tube that drains urine from the kidney to the bladder. Once the stones are located, they are targeted with a laser that breaks the stone into smaller pieces, which are then extracted, or into tiny pieces of dust that wash out of the kidney with normal urine flow.

Often, a small tube, called a stent, will be placed temporarily to help the kidney drain after the operation. The stent is completely internal, and is generally removed after 3-10 days. Removal is performed quickly and easily in the office without the need for anesthesia.

# Advantages

* Excellent results for small- and medium-sized kidney stones
* Versatility and capability of treating some stones that won’t break with SWL
* Can be performed without stopping blood-thinning medication
* Outpatient procedure
* No incisions
* Easy and fast scheduling.

## Percutaneous nephrolithotomy ( PCNL )

It is the preferred technique for treating larger kidney stones (over 2cm in diameter) located within the kidney. It involves keyhole surgery that is performed through a 1cm incision in the skin.

OPEN SURERY

 Open surgery is rarely done for kidney stones anymore. But if your stone is very large or it can't be removed or crushed with other treatments, surgery might be an option.

**Surgery may also help if:**

* One of the stones is stuck in your ureter.
* You're in a lot of pain.
* The stone is blocking your urine flow.
* You're bleeding or you have an infection.

during the procedure. The surgeon will make a cut in your side and into your kidney. He will remove the stone through the opening. A stent is placed in the ureter to help urine drain.

You may need to stay in the hospital for a few days. It can take 4 to 6 weeks to fully heal after open surgery.

## Q3. Give lab and radiological investigation for intestinal obstruction . what can be possible surgical management of intestinal obstruction ?

## Investigation LAB:

* FBC
* ABGs
* BUSE
* ESR & CRP are optional
* 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.

## x-rays

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.

## Computed 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.

##  Surgical management of intestinal obstruction :

There are several surgical options for treatment of bowel obstruction. Surgery is typically urgent, meaning that you may have your surgery within a few hours to a few days after being diagnosed with a bowel obstruction.

 You may have open surgery, with a large incision, or a minimally invasive surgery with a few small incisions and a camera for visualization. This depends on the location, size, and cause of your bowel obstruction. Large tumors or widespread adhesions may require an open procedure, while a small tumor or infection may be treated with minimally invasive surgery.

**Types of surgery for bowel obstruction include**:

* 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 .
* Colostomy/ ileostomy: If your intestines are damaged or inflamed, a permanent or temporary ileostomy or colostomy, 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.

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

## Signs and symptoms od subarachnoid hemorrhage :

* Sever headache
* neck pain
* numbness throughout your body
* shoulder pain
* seizures
* confusion
* irritability
* sensitivity to light
* decreased vision
* double vision
* nausea
* vomiting
* rapid loss of alertness
* The symptoms of SAH come on suddenly, and you may lose consciousness quickly. Seek emergency medical attention right away if you experience any of these symptoms combined with a severe headache.

## GLASSGOW COMA SCALE (GCS ) :

The Glasgow Coma Scale (GCS) is a neurological scale which aims to give a reliable and objective way of recording the state of a person's consciousness for initial as well as subsequent assessment. A person is assessed against the criteria of the scale, and the resulting points give a person's score between 3 (indicating deep unconsciousness) and either 14 (original scale) or 15 (more widely used, modified or revised scale).

GCS was used to assess a person's level of consciousness after a head injury, and the scale is now used by emergency medical services, nurses, and physicians as being applicable to all acute medical and trauma patients. In hospitals, it is also used in monitoring patients in intensive care units.

 GLASSGOW COMA SCALE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  1 |  2  |  3  |  4  |  5 |  6 |
| Eye  | Dose not open eye  | Opens eyes in response to pain | Opens eyes in response to voice | Opens eyes spontaneously | N/A |  N/A |
| Verbal  | Make no sounds  | Makes sounds | Words | Confused, disoriented | Oriented, converses normally | N/A |
| Motor  | Make no movements  | Extension to painful stimuli (decerebrate response) | Abnormal flexion to painful stimuli (decorticate response) | Flexion / Withdrawal to painful stimuli | Localizes to painful stimuli | Obeys commands |

**There are four grades starting with the most severe:**

**EYE RESPONSE**

* No opening of the eye
* Eye opening in response to pain stimulus. A peripheral pain stimulus, such as squeezing the lunula area of the person's fingernail is more effective than a central stimulus such as a trapezius squeeze, due to a grimacing effect.[5]
* Eye opening to speech. Not to be confused with the awakening of a sleeping person; such people receive a score of 4, not 3.
* Eyes opening spontaneously

There are five grades starting with the most severe:

 **VERBAL RESPONSE**

* No verbal response
* Incomprehensible sounds. Moaning but no words.
* Inappropriate words. Random or exclamatory articulated speech, but no conversational exchange. Speaks words but no sentences.
* Confused. The person responds to questions coherently but there is some disorientation and confusion.

Oriented. Person responds coherently and appropriately to questions such as the person’s name and age, where they are and why, the year, month, etc.

**MOTOR RESPONSE**

There are six grades:

* No motor response
* Decerebrate posturing accentuated by pain (extensor response: adduction of arm, internal rotation of shoulder, pronation of forearm and extension at elbow, flexion of wrist and fingers, leg extension, plantarflexion of foot)
* Decorticate posturing accentuated by pain (flexor response: internal rotation of shoulder, flexion of forearm and wrist with clenched fist, leg extension, plantarflexion of foot)
* Withdrawal from pain (absence of abnormal posturing; unable to lift hand past chin with supraorbital pain but does pull away when nailbed is pinched)
* Localizes to pain (purposeful movements towards painful stimuli; e.g., brings hand up beyond chin when supraorbital pressure applied)
* Obeys commands (the person does simple things as asked).

## Q5. Enumerate vital clinical signs for confirmation of appendicitis .how can you manage a patient with acute appendicitis ?

## Clinical signs and symptoms of appendicitis

* Lower right quadrant pain (Mc burneys point )
* Low – grade fever
* Nausea
* Vomiting
* Constipation or diarrhea
* Rebound tenderness
* Loss of appetite
* Rovosing`s sing (pain in right lower quadrant with palpation of left lower quadrant ).
* Ruptured appendix causes abdominal distention develops from paralytic ileus.
* Inability to pass fatus
* Painful urination
* Sever cramps
* Dunphy`s sign (increased pain with coughing )
* Obturator sign (pain on internal rotation of right thigh )
* Psoas sign ( pain on extention of right thigh ).

# Management of acute appendicitis :

An appendectomy (surgery to remove the appendix), also known as an appendicectomy outside the US, is the chosen treatment method for acute appendicitis in almost all cases.

## Antibiotics

Recent evidence has suggested that some cases of uncomplicated appendicitis can be treated with antibiotics instead of an appendectomy. However, this is only appropriate when the appendix has not burst or caused an abscess, and studies have not yet shown that antibiotic-only treatment is as effective as an appendectomy, which remains the standard treatment for appendicitis.

## Surgery :

someone who is known or strongly suspected to have acute appendicitis will be admitted to hospital. They will not be allowed to eat or drink, but will be given intravenous fluids and painkillers, and scheduled for surgery. Surgery generally takes place as soon as possible in order to prevent the infection spreading or complications occurring. In many cases, doctors will also administer antibiotics through a drip both before and after surgery.