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DEPARTMENT : MLT 2ND SEMESTER

SECTION:B

Assignment :General pathology

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Q1.What is shock?Explain it with types.

Shock is a life-threatening medical condition as a result of insufficient blood flow throughout the body. Shock often accompanies severe injury or illness. Medical shock is a medical emergency and can lead to other conditions such as lack of oxygen in the body's tissues (hypoxia), heart attack (cardiac arrest) or organ damage. It requires immediate treatment as symptoms can worsen rapidly.

1: Septic shock results from bacteria multiplying in the blood and releasing toxins. Common causes of this are pneumonia, urinary tract infections, skin infections (cellulitis), intra-abdominal infections (such as a ruptured appendix), and meningitis.

2:Anaphylactic shock is a type of severe hypersensitivity or allergic reaction. Causes include allergy to insect stings, medicines, or foods (nuts, berries, seafood), etc.

3:Cardiogenic shock happens when the heart is damaged and unable to supply sufficient blood to the body. This can be the end result of a heart attack or congestive heart failure.

4:Hypovolemic shock is caused by severe blood and fluid loss, such as from traumatic bodily injury, which makes the heart unable to pump enough blood to the body, or severe anemia where there is not enough blood to carry oxygen through the body.

5:Neurogenic shock is caused by spinal cord injury, usually as a result of a traumatic accident or injury.

[Q2.What do u know about Granulomatous inflammation?Explain in detail.](#)

Granulomatous inflammation is a histologic pattern of tissue reaction which appears following cell injury. Granulomatous inflammation is caused by a variety of conditions including infection, , toxic, allergic, drug, and neoplastic conditions.

Granulomatous inflammation is caused by a variety of conditions including infection, autoimmune, toxic, allergic, drug, and neoplastic conditions. The tissue reaction pattern narrows the pathologic and clinical differential diagnosis and subsequent clinical management. Their ate some types of granulomatous inflammation.

Pseudotuberculous Granuloma

As the name implies, they are quite similar to tuberculous granulomas. They are ill-defined granulomas consisting of macrophages and epithelioid cells. Granulocytes (*mostly neutrophils*) are present in the caseous core. They may form abscesses. Pseudotuberculous granulomas can occur in:

- (1) *Yersinia Pseudotuberculosis*.
- (2) Brucellosis.
- (3) Listeriosis.
- (4) Histoplasmosis.
- (5) Cryptococcosis.
- (6) Typhoid fever.

Rheumatic Granuloma

A granuloma with specialized macrophages (*called Anitchov cells*) around a core of fibrinoid collagen necrosis. Aschoff cells (*a variant of giant cells*) are interspersed between the other cells, while lymphocytes make up the outer layer. Rheumatic granulomas mostly occur in myocardium and only in rheumatic fever.

Rheumatoid Granuloma

A granuloma with a core of fibrinoid collagen necrosis, surrounded by a wall of epithelioid cells. Several centimeters in diameter.

Lymphocytes are present in the outer layer. Often occurring in multiple subcutaneous locations and articular nodules in rheumatoid arthritis.

Foreign-Body Granuloma

A granuloma with epithelioid cells surrounding a material that cannot be broken down, or that provides large enough difficulties in doing so. The foreign body is surrounded by epithelioid cells and giant cells. The outer layer consists of lymphocytes, fibroblasts and vessels.

Tuberculous Granuloma

A large circumscribed granuloma consisting of epitheloid cells around a caseous necrotic core with interspersed Langhans cells. The outer layer consists mostly of lymphocytes. Tuberculous granulomas can occur in:

:Tuberculosis.

:Leprosy.

:Syphilis - A granuloma in syphilis is called gumma. They have coagulative necrosis and central vessels in their core, and plasma cells in their peripheral zone.

Sarcoid Granuloma

Small granulomas that mostly consists of epitheloid cells. No necrotizing center, but fibrosis may be present. The outer layer consists mostly of collagen. Sarcoid granulomas can occur in:

:Sarcoidosis.

:Crohn`s disease.

:Berylliosis.

:Extrinsic Allergic Alveolitis.

:Primary Billiary Cirrhosis.

A granuloma is a structure formed during inflammation that is found in many diseases. It is a collection of immune cells known as macrophages. Granulomas form when the immune system attempts to wall off substances it perceives as foreign but is unable to eliminate. Such substances include infectious organisms including bacteria and fungi, as well as other materials such as foreign objects, keratin and suture fragments.

Q3.What are the effects of use of tobacco on health?

Smoking tobacco damages your heart and blood vessels (cardiovascular system), increasing your risk of heart disease and stroke. It's a major cause of coronary heart disease, which can lead to a heart attack. Smoking causes high blood pressure, lowers your ability to exercise, and makes your blood more likely to clot.

Some effects after smoking of tobacco:

- initial stimulation, then reduction in activity of brain and nervous system.
- increased alertness and concentration.
- feelings of mild euphoria.
- feelings of relaxation.
- increased blood pressure and heart rate.
- decreased blood flow to fingers and toes.

Q4.What do u know about Malignant tumor?How to diagnose and what is its treatment?

Malignant tumors are cancerous. They develop when cells grow uncontrollably. If the cells continue to grow and spread, the disease can become life threatening. Malignant tumors can grow quickly and spread to other parts of the body in a process called metastasis.

Diagnose

Imaging tests used in diagnosing cancer may include a computerized tomography (CT) scan, bone scan, magnetic resonance imaging (MRI), positron emission tomography (PET) scan, ultrasound and X-ray, among others. Biopsy. During a biopsy, your doctor collects a sample of cells for testing in the laboratory

Treatments

Often, depending on the type of tumor, preoperative radiation therapy or chemotherapy (or a combination of the two) may be used to make some of these tumors more easily resected with adequate margins.

Q5. Write a detail note about haemorrhage.

Bleeding, also known as a hemorrhage, haemorrhage, or simply blood loss, is blood escaping from the circulatory system from damaged blood vessels. Bleeding can occur internally, or externally either through a natural opening such as the mouth, nose, ear, urethra, vagina or anus, or through a wound in the skin. Hypovolemia is a massive decrease in blood volume, and death by excessive loss of blood is referred to as exsanguination. Typically, a healthy person can endure a loss of 10–15% of the total blood volume without serious medical difficulties (by comparison, blood donation typically takes 8–10% of the donor's blood volume). The stopping or controlling of bleeding is called hemostasis and is an important part of both first aid and surgery. The use of cyanoacrylate glue to prevent bleeding and seal battle wounds was designed and first used in the Vietnam War. Today many medical treatments use a medical version of "super glue" instead of using traditional stitches used for small wounds that need to be closed at the skin level.

The pattern of injury, evaluation and treatment will vary with the mechanism of the injury. Blunt trauma causes injury via a shock effect; delivering energy over an area. Wounds are often not straight and unbroken skin may hide significant injury. Penetrating trauma follows the course of the injurious device. As the energy is applied in a more focused fashion, it requires less energy to cause significant injury. Any body organ, including bone and brain, can be injured and bleed. Bleeding may not be readily apparent; internal organs such as the liver, kidney and spleen may bleed into the abdominal cavity. The only apparent signs may come with blood loss. Bleeding from a bodily orifice, such as the rectum, nose, or ears may signal internal bleeding, but cannot be relied upon. Bleeding from a medical procedure also falls into this category.