

SHOCK

Shock is the final step for a number of potentially lethal clinical events including: Severe hemorrhage .Extensive trauma or burns. Large myocardial infarction. Large pulmonary embolism. Microbial sepsis.

Regardless of the underlying pathology, shock gives rise to systemic hypoperfusion caused either by reduced cardiac output or by reduced circulating blood volume. The end results are hypotension, impaired tissue perfusion, and cellular hypoxia resulting in the death of the patient.

Types of shock:

1- **Cardiogenic shock**: Results from failure of the cardiac pump. This may be caused by myocardial infarction, ventricular arrhythmias, extrinsic compression to the heart, or outflow obstruction (e.g., pulmonary embolism).

2- **Hypovolemic shock**: Results from loss of blood. This may be caused by hemorrhage, fluid loss from severe burns, or trauma.

3- **Septic shock**: Caused by microbial infection. Most commonly this occurs in the setting of gram-negative infections but it can also occur with gram-positive and fungal infections.

4- **Neurogenic shock**: Less common shock may occur in the setting of an anesthetic accident or a spinal cord injury as a result of loss of vascular tone and peripheral pooling of blood.

5- Anaphylactic shock: Represents systemic vasodilation and increased vascular permeability caused by an immunoglobulin E hypersensitivity reaction. In these situations, acute severe widespread vasodilation results in tissue hypoperfusion and cellular anoxia (Absence of oxygen).

Morphology:

Shock will induce cellular and tissue necrosis due to hypoxia or combination of decrease blood supply and fibrin thrombi which may be identified in any tissue, mostly visualized in kidney glomeruli.

vasovagal attack

A vasovagal attack is a disorder that causes a rapid drop in heart rate and blood pressure, resulting in decreased blood flow to the brain and fainting.

Vasovagal attack is the most common cause of fainting.

The disorder is also referred to as **neurocardiogenic syncope**.

Causes :

1. Prolonged standing is associated with vasovagal attacks because blood may pool in the legs, thus reducing blood flow to the brain.
2. Heat exposure can also lead to a vasovagal attack. As blood flows to the body's periphery to cool the body, this may result in decreased blood flow to the brain.
3. Heightened emotions, such as panic or fright, including dental treatment ; seeing blood, having blood drawn, or being fearful of your life.

4. Straining to have a bowel movement can result in a vasovagal attack from stimulation of the vagus nerve, which lowers the heart rate in some people.
5. rapid pooling of blood to the leg muscles after running or other strenuous exercise.

signs and symptoms

A vasovagal attack is associated with a number of common symptoms related to a lack of blood flow to the brain. Examples include:

- Blurred or double vision
- Cold skin
- Difficulty breathing
- Disorientation
- Fainting, change in level of consciousness, or lethargy
- Headache
- Irregular heart beat
- Nausea with or without vomiting
- Pale skin or pallor
- Pins-and-needles (prickling) sensation
- Slow heart rate (bradycardia)
- Sweating

if fainting is accompanied by serious symptoms, such as

- Abnormal pupil size or nonreactivity to light
- Chest pain or pressure
- Fast heart rate (tachycardia)
- Injury from a fainting episode

- Pale or blue lips (cyanosis)
- Severe difficulty breathing

contact with physician and seek for more medical care.

A vasovagal attack by itself is not serious. However, fainting may be caused by a serious or life-threatening condition.

Dental Management:

1. Lying down and elevating the feet if symptoms begin.
2. therapy to treat feelings of fear or anxiety.
3. taking all medications as prescribed.
4. Monitoring the patient's vital signs.