Chapter 4

Shock
Shock

Introduction

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.

Medical shock is different from emotional or psychological shock that can occur following a traumatic or frightening emotional event. In emotional or psychological shock a person can exhibit the same symptoms of hypovolemic shock. The symptoms are due to vasovagal stimulation (see syncope) and is normally self-correcting once removed from the area of emotional stimulation.
**Pathophysiology**

**Anaphylactic shock** - Is a type of severe hypersensitivity or allergic reaction. Causes include allergy to insect stings, medicines, or foods (nuts, berries, and seafood), etc.

**Signs and Symptoms**

- Altered level of consciousness
- Weak, rapid pulse
- Difficulty breathing, wheezing
- Dry, flushed skin, hives
- Swelling of lips, tongue, face, etc.
- Low blood pressure (late sign)

**Pathophysiology**

**Cardiogenic shock** - Occurs 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.

**Signs and Symptoms**

- Altered level of consciousness
- Weak, rapid pulse or weak, slow pulse
- Pale, cool, clammy skin
- Low blood pressure (late sign)

**Pathophysiology**

**Hypovolemic shock** – Results from severe blood or fluid loss, such as from traumatic bodily injury or severe dehydration, which makes the heart unable to pump enough blood to the body.

**Signs and Symptoms**

- Altered level of consciousness
- Weak, rapid pulse
- Pale, cool, clammy skin
- Low blood pressure (late sign)
Pathophysiology

**Neurogenic shock** – results from spinal cord injury, usually as a result of a traumatic accident. Damage to the cord prevents messages from the brain reaching the heart and blood vessels. As a result the heart’s pacemaker can not speed up and the vascular system dialates.

**Signs and Symptoms**

- Altered level of consciousness
- Weak, slow pulse
- Dry, warm, flushed skin (warm shock)
- Low blood pressure

Pathophysiology

**Septic Shock** – It is a complication of an infection, where toxins from bacteria invade the entire body system. The inflammation resulting from the infection (sepsis) causes tiny blood clots to form, which can block oxygen and nutrients from reaching vital organs causing them to fail.

**Signs and Symptoms**

- Altered level of consciousness
- Weak, rapid pulse
- Warm or hot, dry skin
- Fever
- Low blood pressure (late sign)