

GANGRENE

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DEFINITION

- It is a massive form of necrosis to which putrefaction is superadded.
- In the gangrene the primary change is necrosis and is so massive that repair ,even by fibrosis is not possible.
- The dead portion has either to be removed surgically or is cast off by natural process.
- In gangrenous inflammation inflammatory process is first and is followed by gangrene.

ETIOLOGICAL FACTORS

- Loss of blood supply- factor outside the wall
 - factor within the wall
 - factor within the lumen
- Bacterial infection- e.g. Cl. Welchi
- Chemical agent – strong acid and alkali
- Physical agent – trauma ,heat,cold,radiation

TYPES OF GANGRENE

- DRY GANGRENE
- WET GANGRENE

Sub type of wet gangrene is GAS GANGRENE.

DRY GANGRENE

- It is caused by arterial occlusion.
- Site: It usually involve limbs, generally the distal part of the lower limb.(leg ,foot & toes).
- Grossly: affected part is dry, shrunken and dark brown or black resembling a foot of mummy .The black color is due to iron sulfide. A line of demarcation is seen between normal and gangrenous part.
- Microscopic changes :The coagulative type of necrosis shows smudging of soft tissue and overlying skin .The line of demarcation consists of granulation tissue with inflammatory cells.



WET GANGRENE

- It develops mainly due to venous blockage- e.g. strangulated hernia, intussusception or volvulus.
- Sites: Mostly in moist tissues or organs-e.g. bowel, lung, mouth etc.
- Gross: The affected part is soft, swollen, putrid and dark. No clear line of demarcation is seen.
- Microscopic changes: Liquifactive type of necrosis.
- Diabetic foot and bed sores are also the examples of wet gangrene.

GAS GANGRENE

- It is a special type of wet gangrene.
- Caused by gas forming anaerobic clostridia-e.g. Cl.welchi.

THANK YOU

