RISK OF GANGRENE IN DIABETIC PATIENTS

EARLY CARE CAN PREVENT AMPUTATION AND SAVE LIVES.

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1 INTRODUCTION

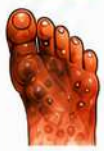
- Diabetes mellitus is a major risk factor for gangrene, especially in the lower limbs.
- High blood sugar damages blood vessels and nerves (neuropathy), leading to poor circulation and loss of sensation.
- Minor injuries, ulcers, or infections can worsen rapidly and progress to gangrene.

2 TYPES OF GANGRENE

DRY GANGRENE

Due to reduced blood flow (ischemia) without infection. Tissue is dry, shriveled, and black.

WET GANGRENE

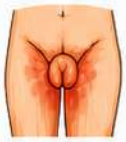


Due to reduced blood flow with bacterial infection. Tissue is swollen, wet, foul-smelling, and may produce discharge.

GAS GANGRENE

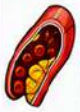
Clostridial infection producing gas in tissues. A rapidly progressive, life-threatening emergency.

FOURNIER'S GANGRENE



A type of necrotizing fasciitis affecting the perineum, genital, or perianal region. This condition is a medical emergency.

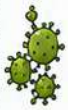
3 CAUSES OF GANGRENE IN DIABETIC PATIENTS



Poor blood circulation (peripheral arterial disease).

Diabetic neuropathy (loss of sensation).

Foot ulcers, cuts, blisters, or trauma



Infection (bacterial or fungal).

Poorly controlled blood sugar

Weak immunity and delayed healing.

4 RISK FACTORS

Poor glycemic control.

History of foot ulcer or amputation.

Peripheral vascular disease

Diabetic neuropathy

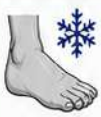
Hypertension and high cholesterol.

Tobacco smoking and excessive alcohol use.

Obesity and sedentary lifestyle.

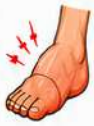
5 SIGNS AND SYMPTOMS

Discoloration (black, brown, or bluish).

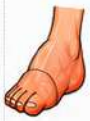


Coldness of the foot.

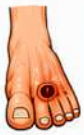
Numbness, tingling, or loss of sensation.



Pain (may be absent in neuropathy).



Swelling



Ulcers, pus, or foul-smelling discharge.

Fever, malaise, and general weakness.

Tissue turning black and dry or wet.

Systemic signs – weakness, fast heart rate, low blood pressure.

6 WAGNER'S CLASSIFICATION (DIABETIC FOOT)

GRADE	DESCRIPTION	CLINICAL APPEARANCE
0	Intact skin.	No open lesion (may have deformity or cellulitis).
1	Superficial ulcer.	Superficial ulcer involving full skin thickness.
2	Deep ulcer.	Deep ulcer penetrating to tendon, bone, or joint.
3	Deep ulcer with abscess or osteomyelitis.	Deep ulcer with abscess, osteomyelitis, or septic joint.
4	Localized gangrene	Gangrene of forefoot or heel.
5	Extensive gangrene	Extensive gangrene of the foot.

DON'T IGNORE SMALL INJURIES!

A small wound today can turn into gangrene tomorrow.

7 MANAGEMENT AND TREATMENT

GLYCEMIC CONTROL

- Maintain blood glucose levels within the target range.
- Regular monitoring of HbA1c.

WOUND CARE

- Regular cleaning and dressing.
- Debridement of dead tissue.
- Off-loading pressure from the affected areas.
- Use of appropriate footwear, casts, or pressure relief devices.

INFECTION CONTROL

- Early culture and sensitivity.
- Appropriate antibiotics as per severity.

IMPROVE CIRCULATION

- Control risk factors (BP, lipids, stop smoking).
- Medications / angioplasty / bypass surgery if indicated.

SURGICAL MANAGEMENT

- Incision and drainage of abscess.
- Debridement of necrotic tissue.
- Amputation if necessary to save life.

LIFESTYLE MODIFICATION

- Balanced diet; regular exercise.
- Foot care: daily inspection, keep feet clean and dry.
- Avoid walking barefoot and tight footwear.

REGULAR FOLLOW-UP

- Regular check-up with healthcare provider and podiatrist.

GOALS

- ✓ Prevent ulcers and infections.
- ✓ Detect early.
- ✓ Treat promptly.
- ✓ Prevent gangrene and amputation.
- ✓ Improve quality of life.

FOOT CARE TIPS

- ✓ Daily inspect your feet.
- ✓ Wash and dry carefully.
- ✓ Moisturize the feet regularly (avoid between toes).
- ✓ Trim nails straight.
- ✓ Wear well-fitted footwear.
- ✓ Do not ignore any wound.

GOOD DIABETES CONTROL AND REGULAR FOOT CARE SIGNIFICANTLY REDUCE THE RISK OF GANGRENE AND AMPUTATION, IMPROVING QUALITY OF LIFE.