

A REVIEW ARTICLE ON GANGRENE

Dr. Kokila Rani Sariwan^{1*}, Dr. Shrikant Patel² and Dr. Sucheta Ray³

¹P.G. Scholar Second Year, Rani Dullaiya Smriti Ayurved P.G. Mahavidhyalaya Evam Chikitsalaya, Bhopal (M.P.).

²Associate Professor, Dept. of Shalya Tantra, Rani Dullaiya Smriti Ayurved P.G. Mahavidhyalaya Evam Chikitsalaya, Bhopal (M.P.).

³Associate Professor, Prasuti And Stri Roga, Rani Dullaiya Smriti Ayurved P.G. Mahavidhyalaya Evam Chikitsalaya, Bhopal (M.P.).

Article Received on
02 July 2019,

Revised on 23 July 2019,
Accepted on 13 August 2019,

DOI: 10.20959/wjpr201910-15726

*Corresponding Author

Dr. Kokila Rani Sariwan

P.G. Scholar Second Year,

Rani Dullaiya Smriti

Ayurved P.G.

Mahavidhyalaya Evam

Chikitsalaya, Bhopal (M.P.).

ABSTRACT

Gangrene is a peripheral vascular Diseases. There are not detailed description of Kotha in Ayurveda Samhita. Acharya Charak has termed putrefy as kotha. Acharya vaghbhatta has termed karma of pitta as kotha. it is clear from the fact that the acharya has described kotha as putrefy. according to modern science kotha can be compared to gangrene. it is a described as complications of vrana. Acharya sushruta has described many treatment of vrana. Diabetic gangrene is included in Dushta vrana.

KEYWORDS: Gangrene, Treatment.

INTRODUCTION

Gangrene is a type of tissue death caused by inadequate or lack of blood supply. Word gangrene derives from latin Gangraena and Greek Gangaina. Which means putrefaction. Parts affected are extremities most oftenly like limbs, fingers, and toes but occur inside the body also.

Types of gangrene

- Dry Gangrene
- Wet Gangrene
- Gas Gangrene

Some other types of gangrene

- Necrotizing fasciitis
- Noma
- Fournier gangrene
- Venous limbs
- Gangrene of small intestine
- Gangrene of large intestine

Risk factors Gangrene

Arteriosclerosis in arms or legs

- Raynaud's disease
- Diabetes
- Blood clots disease
- Appendicitis
- Hernia

Other risk factors

- Lower immunity
- Recent surgery
- Head injury
- Burn
- Animal bite
- Alcohol
- Smoking
- Intravenous drugs

Dry Gangrene

Poor Blood Flow(decreased O₂)

□

Impaired blood Supply in affected area

□

Ischaemia and necrosis

□

Tissue Death



Fig. (a)

Wet Gangrene

Blockage of blood supply(injuries/burn)

□

Free communication between infected and
circulatory flow

□

Rapid growth of bacteria which produce toxins

□

Sepsis and Tissue Death



Symptoms

- An emergency
- Serious and life threatening
- Spread to other parts of body
- Prognosis is poor

- Oedematous
- Soft
- Putrid
- Rotten
- Dark

Daibetes & Gangrene

Diabetes is a risk factor for peripheral vascular disease and thus for dry gangrene but also a risk factor for wet gangrene particular in patient with poorly controlled blood sugar and elevated serum glucose create a favorable environment for bacterial infection.



Fig. (c)

Gas Gangrene

Injuries



Organisam(Clostridia)



Release toxins and form gas within tissue



Tissue death

It's medical emergency, Without treatment, Death can occur within 48 hours, Progression very rapid & Prognosis very poor.



Fig. (D)

NECROTIZING FASCIITIS

- Occur when bacteria (*Streptococcus GAS*) infects the superficial fascia, a layer of connective tissue below skin through the minor cuts or abrasions.
- It occurs within 24hrs
- Pain, redness, swelling
- Discoloration, peeling and tissue death in affected area.



Fig. (E)

Fournier Gangrene

when infection in or near genital area due to UTI or bladder infection.

- . It's a type of necrotizing fasciitis
- . ages 50-60 of men

Pain, fever, unpleasant odor and crackling sound, these symptoms are present



Investigations

Tissue and fluid culture

- X-ray, MRI, CT scan,

Examinations Pain

edematous

- Skin discoloration
- Crepitus
- Low grade fever with chills
- Decrease pedal pulse
- Decrease ankle brachial index
- Blood culture
- Arteriograam

Treatment

- Medical treatment
- Surgical Debridement
- Bypass surgery
- Angioplasty
- Hyperbaric O2 therapy
- Reconstruction surgery
- Maggots debridement

DISCUSSION

Gangrene means death of tissue with putrefaction. Gangrene is seen specially in the limbs, fingers and toes. The causes of gangrene is arterial obstruction. Burger disease Diabetes mellitus, Venous obstruction, trauma and infections. The sign of gangrene is loss of sensation,

loss of temperature, skin discoloration and loss of arterial pulsation. Clinical type of gangrene is Dry and Wet gangrene. Diabetic gangrene is included in dushta vrana and the senile gangrene is the type of dry gangrene. The aim of treatment of gangrene is symptomatic and general treatment, special care of ischemic part, prevention of exposure to cold, arterial surgery and at last Amputation. The causes of death in gangrene are hepatic failure, coronary or cerebral thrombosis. This disease is very serious and threatening. so immediate treatment should be required.

CONCLUSION

Gangrene is a medical emergency as sudden in onset and rapid progression need immediate treatment. Early diagnosis, extensive surgical debridement, prompt antibiotic therapy with intensive care monitoring and application of hyperbaric O₂ therapy can lead to survival.

REFERENCES

1. A concise textbook of surgery, (9thEdition) including sign & symptoms by S. Das.
2. Short practice of surgery, (26thEdition) including investigations and risk factors by Bailey & love's
3. <https://en.m.wikipedia.org>. included Diabetic gangrene.
4. <https://en.m.wikipedia.org>. included Diagnosis of gangrene.
5. Manual of surgery, (5thEdition) including treatment consist of procedures by SRB'S.