



Averting surgical amputation of gangrene finger through homoeopathy – A case report

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Abstract

Introduction - Gangrene in pathology is the death of tissue due to lack of blood supply or a serious bacterial infection. Tissue becomes depleted of oxygen and tissue dies. It's a form of necrosis where tissue dies and decomposes often leading to severe discoloration and potential infection.

Typically, the acral skin of the hand and foot accompanies numbness, pain, coolness, swelling and the skin colour changes to reddish black. When severe infection is associated, fever and sepsis may follow.

Risk factor of gangrene may include diabetes mellitus, atherosclerosis, smoking, major trauma, alcoholism, liver cirrhosis, renal insufficiency, immunosuppression, AIDS, drug abuse and malnutrition.

Most of the cases of gangrene involves surgical debridement, vascular intervention, and sometime amputation.

Keywords: Amputation, acral, atherosclerosis, decomposes, gangrene, homoeopathy, immunosuppression

Introduction

Gangrene is also called as edematous myonecrosis.

Gangrene is tissue damage secondary to infection, ischemia, or both. Or a clinical condition of ischemic and necrotic tissue, often circumferential around a digit or extremity. It is identified by discolored or black tissue and associated sloughing of natural tissue planes. It is a relative uncommon condition, and early recognition is essential. Gangrene is associated with a high incidence of mortality, and patients

that survived, they can have a massive impact on the quality of life. The three main type of gangrene are wet gangrene, dry gangrene, and gas gangrene.

The prevalence rate of gangrene in India is not precisely documented but indicates an incidence around 1.2 to 2 percent of the total population. Also, a study at a tertiary care center in India Wardha found 35 percent prevalence rate of gangrene among patient with peripheral vascular diseases.

Prevalence rate of India - Summary Table (India-Specific Data)

Gangrene Type	Prevalence / Incidence (India)	Mortality
PVD-associated lower-limb gangrene	~35% of PVD patients in a tertiary center	High risk of amputation/death
Diabetic foot gangrene	~9–19% of diabetic foot ulcer cases	Severe outcomes in poor glycemic control
Fournier's gangrene (surgical incidence)	~0.33% of surgical admissions in tertiary hospitals	Mortality ~12% in studied Indian centers
Population-level Fournier's incidence	Globally ~1.6 per 100,000 males/year	Rare but life-threatening

Causes

It can be caused by various factors such as ischemia, infection – bacterial infections, particularly those involving gas producing bacteria like clostridium can cause significant tissue destruction.

Can be caused by blocked blood flow – conditions like diabetes, internal artery disease, and injuries can impair circulation.

Types of gangrene

▪ Dry gangrene

Dry gangrene represents coagulative necrosis of ischemic tissue caused by inadequate blood supply due to peripheral artery disorder. The low levels of oxygen provoke putrefaction without bacterial growth. The affected portion becomes dry, solidified and reddish black.

▪ Wet gangrene

Wet gangrene is featured by bacterial infection of necrotic tissue and secondary sepsis accompanies a poor prognosis when compared with dry gangrene. The affected part becomes oedematous, soft, rotten, and dark. Blisters filled

with turbid fluid are formed on discoloured and cold on touch skin. Secondary infection of gram-positive cocci is common.

▪ Gas gangrene

Gas gangrene is a serious bacterial infection causing rapid tissue death, often associated with trauma or surgery. It is characterized by release of gas within affected tissue, causing swelling, discoloration and severe pain.

▪ Internal gangrene

This is blocked blood flow to internal organs. Affected organs may include gall bladder, intestine or appendix.

Pathophysiology

In ischemic gangrene, reduced arterial perfusion leads to arteriole dilation as compensation, resulting in distal oedema and endothelial damage. This can trigger a cycle of micro thrombosis resulting in worsening tissue damage. Due to the ischemic environment, localized cellular dysregulation limits the ability to have adequate wound healing and set the tissue up for continued damage and

infection. In gas gangrene, bacteria such as *C. perfringens* and group A streptococcus can produce multiple exotoxins, resulting in local tissue destruction and subsequent systemic infection.

Homoeopathic literature provides a good scope for the treating cases of gangrene and preventing surgical amputation. Here we present a case of dry gangrene treated with an individualized homoeopathic approach. No any antiseptic or external applications (ointment) were used for dressing.

Case Report

Patient history

A 37 – year – old woman came with complaint of the injury on her little finger of right hand while working in the farm. She was cutting grass with big knife. She ignored her injury for days, applied some homemade remedies like Haldi, tea powder etc. And after few days affected area became swollen, filled with offensive pus, with unbearable pain. Later she took local allopathic treatment, the allopath drained the pus followed by antibiotics. Within few days, her finger turned blackish, followed by fever and chills. She went for orthopaedic opinion, who advised her to amputate the finger. She wasn't willing for amputation. So, she visited to homeopathic physician. She was afraid of amputation, and not willing to amputate her finger. Further she narrated her complaints -

Chief complaint

- She was afraid of amputation of little finger, crying disposition.
- Blackish discoloration of right little finger with no pain, doesn't want to amputate the finger.
- No sensation on the affected part.
- Affected part was as hard as stone – no pain, no redness, no sensation.
- No movement of the finger.
- Injured part had mummified appearance
- 1st and 2nd digits of finger turned into blackish discoloration.
- Fever with chills in the past 2 days
- Slightly bony pain with want of lying down.
- Throbbing type of headache.
- Temporal and occipital area with feeling of the heaviness in the head
- She was in anxiety and agitation.
- No any other complaints

History of past illness

Diagnostic assessment

Dry Gangrene Diagnostic Scale (Clinical Staging)

Stage	Description	Clinical Features	Vascular Status	Typical Management
Stage 0: At Risk	Ischemic finger without necrosis	Pale, cool, pain on exertion, slow capillary refill	Mild to moderate arterial insufficiency	Monitor, vascular work-up
Stage 1: Initial Dry Gangrene	Distal fingertip necrosis	Black, dry, mummified area; no signs of infection; clear demarcation begins	Severely reduced or absent distal perfusion	Conservative or surgical if needed
Stage 2: Demarcated Dry Gangrene	Gangrene limited to one phalanx	Well-demarcated black tissue, dry, shrunken; no pus or swelling	Absent distal pulses; may have collateral flow	Autoamputation or distal amputation
Stage 3: Progressive Dry Gangrene	Extends proximal to PIP joint or multiple digits	Gangrene spreading proximally; dry but larger area involved	Likely no digital or radial flow	Requires surgical intervention (e.g., ray amputation)
Stage 4: Suspicion of Wet Conversion	Risk of infection or systemic symptoms	Colour changes (brown/green), Odor, warmth, pain, discharge	Signs of sepsis; vascular collapse	Emergency debridement, antibiotics

The patient had a history of recurrent tonsillitis since childhood. No significant clinical history was present as per the patient's narration.

Family history

Mother was diabetic, was on hypoglycaemic drugs. Brother has hypertension. No significant history was present as per the patient narration.

Patient as a person

1. Physical generals

- Appetite – decreased
- Desires - Sweets, sour food
- Aversions - spicy food
- Intolerance - not particular
- Thirst - thirst for cold water
- Urine - normal
- Stools - satisfactory
- Sleep and dreams - her sleep was disturbed at night due to her present complaints and fever
- Sweat - excessive, offensive
- Thermals - toward hot

2. Mental generals

- Gets anxious easily
- Anxious about her finger – how will it look if I had to amputate the finger, how will I manage my work.
- She was afraid of amputation, and not willing to amputate her finger.
- Anxious about people's opinion
- Cannot concentrate on her thoughts.

Life space investigations

Patient was from lower socio-economic class, she was illiterate. She is a farmer, hard worker. Since childhood she's been working harder for family's bread and butter. Got married at an early age. Her married life is good. She's anxious since childhood, about the finances, family, and other's opinion.

Clinical finding

On inspection, location the distal phalanx tip of the little finger. The fingertip appears darkened with areas of hyperpigmented and necrotic or dead tissue changes, particularly in the centre. Central lesion is ulcerated or necrotic area is visible. On palpation slight swelling is presented with no obvious pus are found. No Nail involvement, but surface texture the area looks dry rough. Also, well Well-demarcated black tissue with also feel to mummified tissue like means it's hard to feel.

Above clinical finding and scale which were suggestive of stage 3 involvement and its required surgical amputation

Totality of symptoms

The totality included the following symptoms –

- Anxious about her finger – how will it look if I had to ampute the finger, how will I manage my work
- Cannot concentrate on her thoughts.
- Gets anxious easily
- Anxious about her finger – how will it look if I had to ampute the finger, how will I manage my work.
- No sensation on the affected part
- Affected part was as hard as stone – no pain, no redness, no sensation.
- No movement of the finger.
- Injury site lesion is very hard with no sensation

- 1st and 2nd digits of finger turned into blackish discoloration.
- Fever with chills in the past 2 days
- Slightly bony pain with want of lying down.
- No other compliant.

Selection of remedy

On the basis of sign and symptoms referring to Materia medica and reportorial analysis *Secale Cornutum* was selected as similimum.

Prescription and follow – up

On the day of the visit, *Secale Cornutum 30 C* was prescribed, to be taken twice daily for 7 days and *China officinalis 30 C* also prescribed, to be taken twice daily for 3 days. And followed by a placebo for 15 days. No other alternative treatment was given.

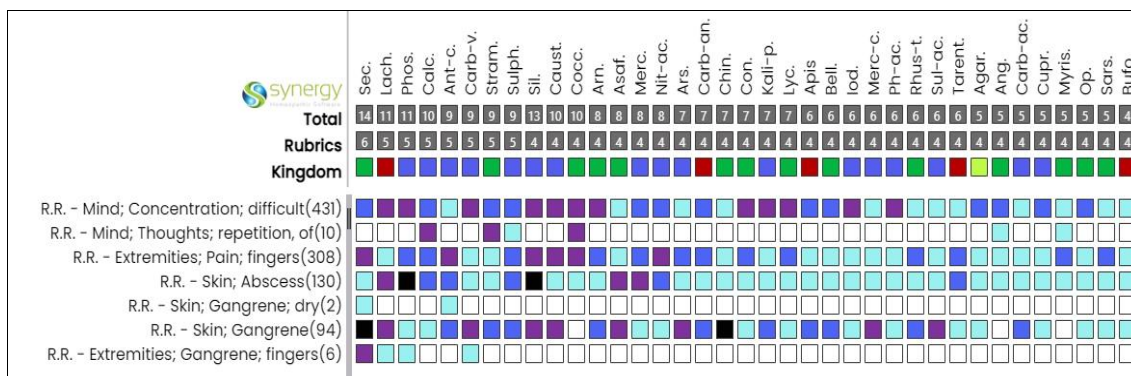


Fig 1: Reportorial analysis

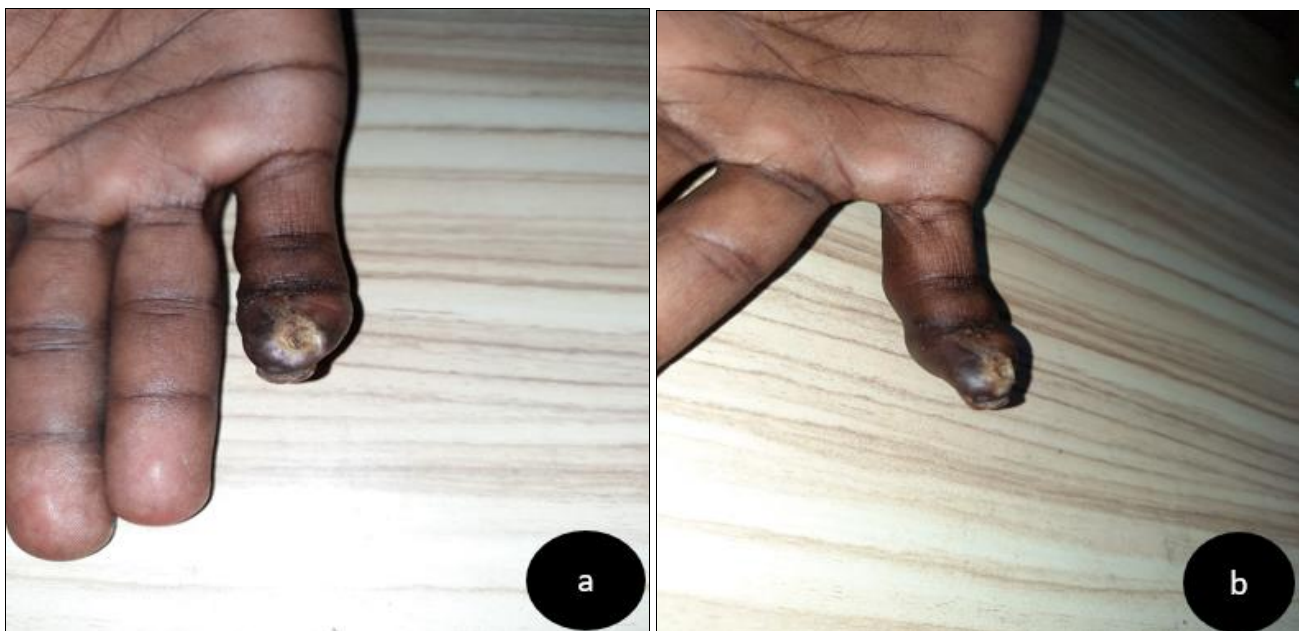


Fig 2: Photographs of gangrene case (a – b) before treatment 1 Aug 2024

Discussion

This case report describes the effectiveness of homoeopathic treatment in gangrene. The patient had sought homoeopathic treatment to avoid amputation. Based on the totality of symptoms, the case was analyzed. *Secale Cornutum 30 C* was selected as similimum based on marked symptoms was told. It is also noted that *Secale cornutum* one of the main remedies for finger gangrene and dry

gangrene. Also, affinity of this drug is gangrene from traumatic from application. Sensation of deadness in any part.

The gangrene was healed within 2 months and improvement in other general symptoms was also observed during the course of the treatment. After assessing the case with the modified Naranjo criteria, the total score was 08. It was suggestive of a definite association between the medicine

and outcome.

The above case shows the usefulness of homoeopathic treatment in the management of dry gangrene and prevent of the finger from amputation.

The limitation of this case report is the inability to keep a record of the other investigation such as CBC, urea, creatinine and colour doppler, which could have been valuable indicators of the overall health condition of the patient.

Prescription and follow-ups

Date	Symptoms and Observation	Prescription
1 Aug 2024	Affected part was as hard as stone – no pain, no redness, no sensation. No movement of the finger. Blackish discoloration of right little finger with no pain. Injury site lesion is very hard with no sensation. That is like mummified. 1 st and 2 nd dixit of finger are turn into the blackish discoloration. With nail involvement. Fever with chills in the past 2 days Slightly bony pain with want of lying down. Throbbing type of headache. Temporal and occipital area with feeling of the heaviness in the head. She was in anxiety and agitation. (figure a – b)	1) <i>Secale Cornutum 30 C</i> was prescribed, to be taken twice daily for 7 days and 2) <i>China officinalis 30 C</i> also prescribed, to be taken twice daily for 3 days. 3) <i>Placebo</i> twice daily for 15 days.
16 Aug 2024	Blackish discoloration of right little finger now slightly faint in colour. Mummification of central portion also slightly changed in appearance. That is reduced in size. (figure c – d) Slight movement in tip of the finger also appear. No feverish feeling with pain in body. No headache. Anxiety also slightly reduced. No any more compliant.	1) <i>Placebo</i> three times in day for 15 days.
2 September 2024	Blackish discoloration of right little finger now fainter in colour. (figure e) Center portion of tip of finger is peeling out of skin and with healing in new healthy tissue. Nail involvement also improved in condition that is change in color to normal appear. No new compliant No any more compliant	1) <i>Secale Cornutum 200 C</i> single dose for 1 day. 2) <i>Placebo</i> three times in day for 15 days.
17 September 2024	Normal appearance of skin proximal finger including nail. Centre portion of finger totally heals up. (figure f – g) No new compliant.	1) <i>Placebo</i> three times in day for 15 days.
4 October 2024	Normal appearance of skin of finger. (figure f – g) Movement of finger restored normal. Sensation of the 1 st and 2 nd digit finger back to normal. No new complaints.	1) <i>Placebo</i> three times in day for 15 days.



Fig 3: Photographs of gangrene case (c – d) during treatment 16 Aug 2024



Fig 4: Photographs of gangrene case (e) during treatment 2 Sept 2024



Fig 5: Photographs of gangrene case (f–g) during treatment 17 Sept 2024 and 4 Oct 2024

Assessment of outcome with Modified Naranjo Criteria -

Scoring parameters

Sr No	Domains	Yes	No	Not sure or N/A
1	Was there an improvement in the main symptom or condition for which the homeopathic medicine was prescribed?	+2		
2	Did the clinical improvement occur within a plausible timeframe relative to the drug intake?	+1		
3	Was there an initial aggravation of symptoms?		0	
4	Did the effect encompass more than the main symptom or condition (i.e., were other symptoms ultimately improved or changed)?	+1		
5	Did overall well-being improve? (suggest using validated scale)	+1		
6	A Direction of cure: did some symptoms improve in the opposite order of the development of symptoms of the disease?		0	
7	Direction of cure: did at least two of the following aspects apply to the order of improvement of symptoms: –from organs of more importance to those of less importance? –from deeper to more superficial aspects of the individual? –from the top downwards?		0	
8	Did “old symptoms” (defined as non-seasonal and non-cyclical symptoms that were previously thought to have resolved) reappear temporarily during the course of improvement?		0	

9	Are there alternate causes (other than the medicine) that—with a high probability— could have caused the improvement? (Consider known course of disease, other forms of treatment, and other clinically relevant interventions)	+1		
10	Was the health improvement confirmed by any objective evidence? (e.g., laboratory test, clinical observation, etc.)	+2		
11	Did repeat dosing, if conducted, create similar clinical improvement?		0	
Total Score - 08				

Conclusion

The case report shows that the surgical case of dry gangrene can be managed well with homoeopathic treatment. We can see potential of homoeopathic medicine in treating such difficult cases. In this case, gangrenous part was saved from amputation within a short period. Where surgical intervention like amputation becomes the primary choice of treatment.

Declaration of patient consent

The patient has given her consent for reporting her clinical information in this journal. The patient understands that her name and initials will not be published, and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

Conflicts of interest

None declared.

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