

## CASE REPORT

# Gangrene: Five case studies of gangrene, preventing amputation through Homoeopathic therapy

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### ABSTRACT

Gangrene and its associated amputations are clinically challenging, but Homoeopathy offers therapy options. In this case series, 5 cases are presented, in which the homoeopathic treatment prevented amputation of a body part. Homoeopathy stimulates the body's ability to heal through its immune mechanisms; consequently, it achieves wound healing and establishes circulation to the gangrenous part. Instead of focusing on the local phenomena of gangrene pathology, treatment focuses on the general indications of the immune system, stressing the important role of the immune system as a whole. The aim was to show, through case reports, that homoeopathic therapy can treat gangrene without amputating the gangrenous part, and hence has a strong substitution for consideration in treating gangrene.

**Keywords:** Amputation, Gangrene, Homoeopathy, Immune system

### BACKGROUND

Gangrene is a condition characterized by necrosis of a body part due to lack of circulation, injury, or infection. The tissue becomes depleted of oxygen and eventually dies. Many conditions may lead to gangrene; the most common are injury, peripheral vascular diseases (e.g., in chronic smoking and diabetes mellitus) and infections. It may also occur in certain blood disorders like polycythaemia.

Gangrene is categorized as dry, wet, or gas. In dry gangrene, there is a classic line of demarcation between the necrotic and normal tissues. When the cause of the gangrene is in the blood vessels (e.g., in peripheral vascular disease and polycythemia), there is a clearly defined dead area with little or no discharge or pus. Wet gangrene often occurs in cases of infection and injury; the necrotizing area may be unclean; there may be swelling, discharge, and sloughing off of the tissue. This sometimes occurs even over an area of

dry gangrene if an infection gets superadded. Gas gangrene is the specific infection from *Clostridium perfringens*, which releases gas-producing toxins; this causes bubbling of the tissues. Wet and gas gangrene spread very quickly. Furthermore, due to the bacterial toxins that are released, the resulting sepsis can be fatal in a very short period. These cases usually require amputation of the body part. However, in cases where such drastic measures may not be warranted, treatment includes debridement and wound care, revascularization and hyperbaric oxygen therapy.

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The burden of amputation (in general) is quite heavy. Globally, one million amputations occur every year; approximately one amputation every 30 seconds. It is estimated that the toll of amputees will reach 435 million by 2030; of these, over 54% will be affected only by peripheral vascular diseases, especially diabetes mellitus.<sup>[1]</sup> Moreover, the mortality among people who undergo amputation is very high, especially if they have vascular diseases.<sup>[2]</sup> Another burden caused by gangrene, is that, patients who undergo amputation are psychologically affected; the cycle of fear, depression, and panic is detrimental to their improvement.<sup>[3]</sup> Finally, amputation is usually performed in patients with compromised blood flow, which, therefore, reduces their chances of complete wound healing even after the surgery.<sup>[4]</sup>

Here, we present 5 cases, in which the homoeopathic treatment prevented amputation of a body part. These patients were treated at Centre for Classical Homoeopathy, Bangalore, India.

All the patients underwent regular dressing of the gangrene as a part of the treatment and no antiseptics, except *Calendula officinalis* mother tincture were used for the purpose of dressing.

The study has been approved by the Ethical Committee or institutional review board and the subjects gave informed consent to the work. It has been carried out in accordance with the code of ethics of the World Medical Association

(Declaration of Helsinki) for experiments involving humans.

## CASE REPORTS

### Case 1

A 60-year-old woman with an ulcer on the right foot; Figure 1

- She was diabetic for 18 years; was on 30 units of *Insulin* per day
- The ulcer had progressively worsened over a month and was scheduled for amputation
- There was black, bloody, discharge from the ulcer. The bleeding was profuse, and the smell was intolerable
- There was some pain in the foot but no sense of touch. There was also numbness in both the legs
- Appetite was poor, and she was sleepless
- She complained of a chilly sensation in the body, and her extremities were cold to touch.

Here, there was a specific behavior on her part that drew the attention of the homoeopath. She was unduly rude to her husband while, with others, her behavior was polite. On inquiry, the husband confirmed that she was mostly rude toward her family.

### Prescription and follow-up

The homoeopathic prescriptions for this case were *Sepia*, *Silica* and *Sulphur* in sequence



**Figure 1:** Photographs of gangrene Case 1: (a), (b), (c) before treatment, (d) during treatment (e) and (f) after treatment

over 3 months [Table 1 and Figure 1a-f]. During this period, the wound steadily healed; after 3 months, she was walking without aid. She later continued treatment for her diabetes.

### Discussion

This case was scheduled for knee level amputation. Hence, the healing of the gangrene and thereby preservation of the limb through homoeopathic therapy is remarkable. The circulatory stasis along with the indifference she showed toward husband indicated *Sepia*.<sup>[5]</sup> It may also be noted that *Sepia* is

one of the main remedies for cold extremities and for ulcers of the foot.<sup>[6]</sup> The remedy was changed to *Silicea* on account of change in the nature of the discharge. Later, she started becoming thermally hot, and the blood sugar increased. She also exhibited ravenous hunger and hunger at 11 am. At this time, *Sulphur* was prescribed.

In classical Homoeopathy, one remedy is given at a time to the patient, and the rules also state that when a particular medicine stops acting (indicated by change of symptoms or worsening of the improved

**Table 1: Observations and prescriptions: Case 1**

Date	Detailed symptoms/observations	Prescription
03/12/2001	Fasting blood sugar: 175 mg/dL Post prandial blood sugar: 212 mg/dL	<i>Sepia</i> 30C 3 times a day for one week
07/12/2001	Increase in pain in the foot, chilliness, cold extremities Improved appetite and sleep Sleeps on left side	<i>Sepia</i> 30C 5 times a day for one week
12/12/2001	Burning micturition Burning in the ulcer <10 pm Chilliness wants to cover with blanket Dryness of lips and mouth with increased thirst Emotionally still the same reaction	<i>Sepia</i> 30C twice a day for one week
18/12/2001	Frequent urination Fasting blood sugar: 137 mg/dL Postprandial blood sugar: 150 mg/dL	<i>Sepia</i> 30C 3 times a day for one week
24/12/2001	Severe chills with occasional fever Burning in the ulcer < slightest movement Emptiness felt in the stomach Sleeps on left side Increased thirst for small quantities often Hard stools	<i>Sepia</i> 30C twice a day for one week
02/01/2002	Fasting blood sugar: 143 mg/dL Postprandial blood sugar: 215 mg/dL All gone sensation in the stomach has disappeared (emptiness) Urge to pass urine after drinking water Coldness of extremities Sleeplessness, Sleeps on left side Discharge of offensive pus from the wound	<i>Silicea</i> 30C twice a day for one week
07/01/2002	Generally well Wound is healing Mild cough < night Increased frequency of urination	<i>Silicea</i> 30C twice a day for one week
18/01/2001	Fasting blood sugar: 127 mg/dL Post prandial blood sugar: 202 mg/dL Generally well wound healing	<i>Silicea</i> 30C twice a day for 15 days
01/02/2002	Thermally hot now Burning in ulcers Ravenous hunger especially at 11 am Restless sleep Swelling in extremities < morning	<i>Sulphur</i> 30C twice a day for 10 days
11/02/2002	Fasting blood sugar: 140 mg/dL Post prandial blood sugar: 216 mg/dL Occasional dry cough Tiredness <4 am Ulcer has completely healed	After this stage, the patient continued treatment for diabetes mellitus and other complaints for over 5 years, during which there was no relapse of the gangrene

state through previous medication), it is time to reconsider and give the next indicated remedy. This shall complete the action that was initiated by the previous remedy.<sup>[7]</sup>

**Case 2**

A 45-year-old man with gangrene of the right little finger; Figure 2(a-e).

- The swelling extended to the metacarpal joint
- There was severe burning in the palm
- The gangrenous part felt no pain
- The extremities trembled
- He had nausea at the thought and smell of food and was unable to eat
- He had dull vision for the past 8 years
- He was an alcoholic and smoker for the past 25 years
- His blood sugar level was normal
- He had increased thirst with a frequent need to drink even at night
- He was restless in bed.
- He desired lemons and salt
- He had frequent chills
- Arterial Doppler of his upper right limb showed no significant narrowing/stenosis in the studied arteries up to the wrist; distal small vessel

disease/embolic disease could not be ruled out

- In this case, no other medication allopathic or others were employed except the ones mentioned here.

**Prescription and follow-up**

The homoeopathic remedy *Arsenicum album* 12C, 5 times a day for 1-month, was prescribed [Table 2]. The medication was not changed during the entire 1 month period after which the patient stopped treatment owing to complete healing of the gangrene.

**Discussion**

This case demonstrates the ease with which the gangrene heals in an uncomplicated case. Here, there was no diabetes mellitus, but there was a history of heavy smoking, which may have affected the distal vessels, leading to gangrene.

*Arsenicum album* is one of the remedies that has putrefaction as its hallmark and is used extensively in septic conditions.<sup>[8]</sup> The same remedy helped in this case too. The pathology and the symptomatology both were well covered by the remedy, hence the full and quick recovery.



**Figure 2:** Photographs of gangrene Case 2: (a) and (b) before treatment, (c) during treatment, (d) and (e) after treatment

Table 2: Observations and prescriptions: Case 1		
Date	Detailed symptoms/observations	Prescription
09/08/2013	Purulent, bloody discharge Severe burning in palm Nausea at the sight and smell of food Restless in bed Frequent chills	<i>Arsenicum album</i> 12C 5 times a day for 2 days; the same remedy was repeated at next follow-up The remedy did not change for one month, which is till the gangrene completely healed. After that, the patient stopped receiving the homoeopathic treatment.

### Case 3

A 59-year-old male presented with relapsing diabetic gangrene; his right foot was gangrenous since 3 weeks. Two years prior, the same foot was gangrenous, and the second toe was amputated.

- The right foot was painful
- The gangrenous foot was swollen with an offensive discharge Figure 3(a-e).
- He had weakness throughout the day
- He had occasional breathlessness
- He had dryness of mouth but no thirst
- His *Insulin* treatment for diabetes mellitus was 20–0–10 units. On occasions of severe asthma patient resorted to Corticosteroid inhalations. Otherwise, no other medicines were being taken during the course of treatment
- He had myocardial infarction 2 years priorly
- He had a family history of asthma (father)
- He had increased hunger at night and desired sweets and oranges
- He slept late and on the abdomen.

#### Prescription and follow-up

*Medorrhinum* helped this patient's wound to heal up, in 3 months [Table 3]. His blood sugar was brought under control as well with *insulin* reduced progressively and stopped.

After 3 months, he discontinued the treatment as he lived in a different city and was unable to continue.

Two years later, there was a relapse of gangrene in the same foot. Meanwhile, he had started taking insulin, which was keeping his blood sugar under check. At that time, the homoeopathic remedy *Arsenicum album* was prescribed [Table 3], and it

healed in a month this time. Thus, he was treated successfully for gangrene twice.

### Discussion

The first remedy *Medorrhinum* was prescribed based on the general symptoms that the patient exhibited (especially the desire for oranges, which was strong). Here, the case shows that he had a chronic condition running in him and that the gangrene was relapsing. This indicated that he needs to be given a deeper remedy, which can touch the basic layer of disease. *Medorrhinum* is one such remedy. Therefore, it cleared the gangrene and eased his asthma as well. His blood sugar also was brought under control.

However, in this case, the gangrene relapsed again because the patient went back to Corticosteroids for his asthma as he could not continue homoeopathic treatment. The suppression of his asthma made the deeper pathology relapse. At this time, the remedy that was indicated was one that has sepsis and putrefaction.<sup>[8]</sup> His other symptoms also indicated the same remedy. Moreover, indeed the gangrene healed well with *Arsenicum album*.

### Case 4

A 66-year-old man with gangrene developing on the right foot Figure 4(a-c).

- He had diabetes for 25 years and was treated with 20 units of *Insulin*
- He had dryness of the mouth with some thirst
- He slept on his right side
- He had prior gangrene in the left foot and amputated toes (March 2006)



**Figure 3:** Photographs of gangrene Case 3: (a) and (b) before treatment, (c) during treatment (d) and (e) after treatment

**Table 3: Observations and prescriptions: Case 3**

Date	Detailed symptoms/observations	Prescription
04/06/2007	Desires oranges Late sleeper Sleep position on abdomen <i>Insulin</i> 20 units day for diabetes mellitus	<i>Medorrhinum</i> 30C, one dose a day for 8 days Follow-up: This prescription was continued till 13/08/2007 Till then the blood sugar was steadily reducing with corresponding reduction in <i>Insulin</i> The ulcer was healing under regular dressing
13/08/2007	Patient is presently on 12 units of <i>Insulin</i> /day The blood sugar had risen considerably (fasting: 300 mg/dL)	Changed to <i>Medorrhinum</i> 35C Continued till 08/09/2007 with steady decrease in blood sugar and healing of the wound
08/09/2007	Fasting blood sugar: 220 mg/dL Relapse of breathlessness (usually relapses in rainy weather) Symptoms of breathlessness were < while lying + > while sitting + > while urinating ++	<i>Thuja</i> 30C, one dose
20/12/2007	Random blood sugar has risen to 418 mg/dL Tiredness++ No wheezing Sleepiness after breakfast + Cold extremities + Thirstless + 11 am hunger +++	<i>Sulphur</i> 30C one dose a day for 5 days After this, the patient went back to his native village and did not come for homoeopathic treatment till 08/03/2009
08/03/2009	Reappearance of gangrene since 2 days Offensive discharge ++ Painful ++ Thirstless Sleep toward right side Chilly + Traveling sickness ++ Fasting blood sugar: 60 mg/dL 4 units of <i>Insulin</i>	<i>Arsenicum album</i> 30C two doses a day for 8 days
17/03/2009	Gangrene has healed No discharge or pain Fasting blood sugar: 155 mg/dL Relapse of asthma since 3 days	<i>Arsenicum album</i> 30C (two doses a day) was continued for 6 months with some irregularity with patient adherence

- He had a myocardial infarction (1989)
- Doppler study impression showed that the right superficial femoral artery and popliteal artery were patent and had a moderate disease with biphasic flows. Right anterior and posterior tibial arteries were heavily calcified with poor/patchy dampened flows. Right mid posterior tibial artery showed a jet, suggesting high-grade stenosis.

**Prescription and follow-up**

The homoeopathic remedy *Lachesis* helped in healing the gangrene stabilized it in 4 months [Table 4].

**Discussion**

*Lachesis* is one of the remedies that have circulatory problems. In this case, the complete symptomatology and the pathology (arterial disease) were covered by *Lachesis*, but what was very strong was his side affiliation. The body showed a tendency to develop right sided afflictions after left-sided ones. He also had a

strong inclination to sleep to the right.<sup>[6]</sup> These were very important symptoms and directed the physician toward the remedy. This case was very bad in terms of prognosis and healing of the gangrene without amputation is remarkable.

**Case 5**

A 70-year-old man who was scheduled for amputation of his hand due to diabetic gangrene in 2004. Unfortunately, his case sheet is missing, and a detailed follow-up is difficult to report. the symptoms recorded from the video discussion is mentioned [Table 5 and Figure 5a-d].

**Symptoms**

- Hunger at 11 am
- Heat felt in feet
- Desire for sweets.

**Prescription and follow-up**

The remedy *Sulphur* 30C was prescribed for 1-month during which the gangrene completely healed.



**Figure 4:** Photographs of gangrene Case 4: (a) and (b) before treatment, (c) after treatment

Note: This patient was exclusively on homeopathic treatment. No other medicines were employed.

#### Discussion

This patient was from a rural background and as such had a very well preserved health status. His symptoms (general as well as local) were very clear and marked. He did not show any mixture of remedies (again indicating that he was very healthy).<sup>[9]</sup> Therefore, considering general symptoms, *Sulphur* was prescribed which completely healed the gangrene in one-month.

#### CONCLUSION

A human being is not compartmentalized into his organ systems. The body functions and reacts as a whole. Furthermore, the body and mind is one complete complex and must be treated as such in order to improve health outcomes. One's emotions and thoughts have a great influence on the function of the body. The immune system not only responds to stimuli from outside the body but also to those from within, even from the mind. Unless this integrity is recognized and honored, we may be limiting our treatment approach.<sup>[3]</sup> By understanding the entirety of the human organism, any disease may be treated using the body's power to heal itself. Homoeopathy uses this power and pushes one's ability only as far as needed to overcome the disease obstacles.

In the above cases, we consider nonhealing wound turning into gangrene. In chronic arterial occlusion or long-standing peripheral vascular disease, collateral circulation usually develops to compensate



**Figure 5:** Photographs of gangrene Case 5: (a) and (b) before treatment, (c) during treatment (d) after treatment

for the occluded or inflamed vessel.<sup>[10,11]</sup> In certain situations such as injury, new blood vessels develop as part of the wound healing process. This process is automatically regulated by the organism's defense mechanism. Indeed, wound healing is an orchestra of immune cells performing in perfect harmony and sequence. To heal a wound properly, a sequence of events must occur: hemostasis, inflammation, cell differentiation, proliferation and migration followed by angiogenesis and firm scar tissue formation. Immune cells like neutrophils, must also clear the wound site of cellular debris and microbes. T-cells also play a prominent role in wound healing and scar tissue formation.<sup>[12]</sup> Therefore, wound healing is a multifaceted phenomenon.

If any of the events in the wound healing phenomenon fail (even a little), a nonhealing wound results; it may progress to gangrene due to overbearing infection. In such situations, Homoeopathy is beneficial because its focus is to stimulate the immune system, to re-establish order.<sup>[9]</sup> This is achieved by carefully understanding the disease and the patient's individual response to it and then by selecting a medicine based on this insight. In other words, Homoeopathy considers the totality of symptoms (even ones not obviously related to the pathology), along with the pathology itself. This makes for a holistic understanding of the patient's immune status. With the right homoeopathic remedy, the inflammation and wound healing process set in and finally close up the wound. Within a short period, the remedy heals the gangrene, controls infection, and

**Table 4: Observations and prescriptions: Case 4**

Date	Detailed symptoms/observations	Prescription
02/10/2010	Arterial disease Side left to right Lies on right side 20 units Insulin per day	As the side, predilection was significant, <i>Lachesis</i> 12C 3 times a day for 2 days
04/10/2010	New tissue appearing in the ulcer	<i>Lachesis</i> 12C 3 times a day for 3 days
07/10/2010	Doppler study impression: The right superficial femoral artery and popliteal artery are patent and show moderate disease with biphasic flows Right anterior and posterior tibial arteries are heavily calcified with poor/patchy dampened flows Right mid posterior tibial artery shows a jet suggesting high-grade stenosis	<i>Lachesis</i> 12C 3 times a day for 15 days
19/10/2010	Wound is stable Now patient complains of pain in the edges of the ulcer	<i>Lachesis</i> 14C 3 times for 3 days (same prescription continued till 06/11/2010)
06/11/2010	Generally well	<i>Lachesis</i> 18C 3 times a day for 5 days
12/11/2010	Offensive discharge from the ulcer Patient has chills but no fever	<i>Lachesis</i> 18C 3 times a day for 5 days
16/11/2010	Burning in soles < night ++ Hunger at 12 pm	<i>Lachesis</i> 18C 3 times a day for 5 days (same prescription continued till 29/11/2010)
18/11/2010	Hypoglycemia	Advised to reduce <i>Insulin</i> to 16 units
20/11/2010	Fasting blood sugar: 201 mg/dL	-
29/11/2010	Tired feeling at 11 am >> eating sugar	<i>Lachesis</i> 20C 3 times a day for 5 days (continued till 20/12/2010)
20/12/2010	Hard stools	<i>Lachesis</i> 22C 3 times a day for 5 days (continued till 17/01/2011)
03/01/2011	Two episodes of hypoglycemia Advised to reduce Insulin to 12 units	
09/01/2011	Again hypoglycemic episodes Advised to reduce Insuline is divided dose (4-0-4 units) Fasting blood sugar: 200 mg/dL	-
17/01/2011	Mild cough	<i>Lachesis</i> 24C 3 times a day for a week (continued till 02/03/2011)
12/02/2012	Generally well Wound healed well	After this stage, the patient was treated for other complaints (mostly hypoglycemia episodes) that he developed, but his gangrene was healed. Though a few relapses would occur, and the wound would open up again, but he was on the whole not suffering from it

**Table 5: Observations and prescriptions: Case 5**

Date	Detailed symptoms/ observations	Prescription
February 2004	Hunger at 11 am Heat felt in feet Desire for sweets	<i>Sulphur</i> 30C for over a month to achieve the healing of this wound

establishes circulation. Furthermore, Homoeopathy is advantageous, because the general condition of the patient is preserved during this whole process of gangrene healing. In diabetic cases, one can also appreciate the control of blood sugar levels.

Homoeopathy can help preserve the integrity of the organism to a great extent. Indeed, cases of seemingly inevitable amputation (by conventional medicine) may surprisingly respond to Homoeopathy and may be saved. However, the limitation to this method is the expertise of the homoeopath. To

assess the condition and later the progress of the patient, the homoeopath must be well equipped with the knowledge of pathology and of homoeopathic laws. He also needs a keen observation, without which dealing with such potentially fatal cases is not recommended. Furthermore, practically speaking, time is a limitation. There is very little time for even the most accomplished homoeopath to take care of these often dire situations. Usually, a classical homoeopathic physician can assess the prognosis within 24 hours of the remedy and understand (according to the laws of cure) where the case will progress. However, in some cases, even this much time can prove fatal. There is no time to decide on the right remedy after a mistake.

The above case reports clearly provide a rationale for the use of Homoeopathy in the treatment of gangrene. Importantly, it is essential to perform

an interdisciplinary study of the gangrene cases treated with Homoeopathy using the latest imaging and pathology techniques. These case reports are indicative of what may be achieved with these pioneering treatments. The burden of amputation may be greatly reduced with further cooperation among therapeutic disciplines, and treatment can become holistic and patient-centric.

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### Conflicts of Interest

There is no conflicts of interest.

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### कोथ – कोथ के पाँच प्रकरण अध्ययन, होम्योपैथी चिकित्सा के माध्यम से अंगोच्छेदन से बचाव

**सार:** कोथ एवं उससे संबंधित अंगोच्छेदन नैदानिक दृष्टि से चुनौतीपूर्ण हैं, पर होम्योपैथी इसके चिकित्सा विकल्प प्रस्तुत करती है। यहां हम ऐसे 5 प्रकरण प्रस्तुत कर रहे हैं, जिनमें होम्योपैथी उपचार ने शरीर के अंग का उच्छेदन होने से बचाव किया। होम्योपैथी, शरीर के प्रतिरक्षा तंत्रों के माध्यम से शरीर का घाव भरने की क्षमता को उद्दीप्त करती है; परिणामतः घाव भर जाता है और कोथयुक्त भाग तक परिसंचरण स्थापित हो जाता है। कोथ के रोगविज्ञान की स्थानीय परिघटना पर ध्यान केंद्रित करने के बजाए, होम्योपैथी उपचार समग्र रूप में प्रतिरक्षा तंत्र की महत्वपूर्ण भूमिका पर बल देते हुए, प्रतिरक्षा तंत्र के सामान्य संकेतनों पर ध्यान केंद्रित करता है।

**मुख्य शब्द:** कोथ, अंगोच्छेद, होम्योपैथी, प्रतिरक्षा तंत्र