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Case Report

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# GANGRENE OF THE LEFT INDEX FINGER ON APPLICATION OF AMRUTANJAN PAIN BALM

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#### **ABSTRACT**

Amrutanjan is an ayurvedic topical formulation used for aches and pain, especially for muscular and joint pain. The manufacturers claim that the balm has no reported side effects. Here, we report a case of gangrene of the pulp of left index finger following the balm application. The patient had applied the ayurvedic preparation for the pain and joint stiffness. Later he noticed discoloration in the tip of the finger. The patient did not use any other ointment or had taken any medication during this period.

**KEYWORDS**: Gangrene of finger, adverse reaction, Amrutanjan pain balm.

#### INTRODUCTION

Amrutanjan is a company which was established in 1893. It has many products like pain balm for headache and body pain gel. It is a herbal ayurvedic formulation blend of aromatic herbs and essential oils used for relieve of occasional pain, sprains, headaches, blocked nasal passage.<sup>[1]</sup>

Gangrene of finger is a serious and life threatening condition and it needs urgent medical consultation and management. Gangrene of the finger is usually secondary to ischemic

causes, intravenous drugs and trauma. Some of the known causes are ischaemia, hypertensive angittis, arteriosclerosis, connective disorders etc.<sup>[2]</sup>

Other less common causes are vascular problems including vasculitis, peripheral arterial diseases, high blood pressure, severe burns, frost bite and diabetes mellitus.<sup>[3]</sup>

We, rarely see gangrene of the finger secondary to the local application of an ointment, gel or balm. Here we report a case of gangrene of the tip (Pulp) of the left index finger following an application of amrutanjan balm in a healthy elderly man without any co-morbid conditions.

#### **CASE REPORT**

A 74 year elderly man presented to the surgical OPD in the month of August with the complaints of discoloration of the tip of left index finger since 7 days.

On detailed enquiry, it was noted that the patient had some pain at the left index finger mostly at the tip of the finger and also had joint stiffness. He applied small amount of amrutanjan balm to the finger 2-3 times daily for 4-5 days. The pain did not subside however he noticed that the finger tip including pulp had turned blackish discolouration and the pain gradually increased.

The patient did not have any co-morbid conditions such as diabetes, hypertension or IHD. He was not on any medication.

On examination he was an elderly gentleman in good general condition having stable vital signs. Local examination revealed that there was gangrene of the tip including pulp of the distal phalanx of the left index finger, distal joint movement was restricted. Regional peripheral arterial pulsations were normal. Systemic examination was found normal.

The patient under went all necessary biochemical investigations, chest X-ray and ECG all were within normal limits.

The patient underwent distal phalanx disarticulation under local anesthesia. The patient received pre operative antibiotics and was continued for 3 days postoperatively, for analgesic tab paracetamol was given. Regular dressing was done and wound healed. He was discharged in good condition.



Fig 1: Pre – Op



Fig 2: Post- Op

#### **DISCUSSION**

Amrutanjan is an ayurvedic proprietary medicine. When applied topically and rubbed on the area of skin it acts as a counter irritant relieves pain and inflammation in deeper organs, as cutaneous impulses obscure the pain impulses of deeper sensations. Amrutanjan contains has many active and inactive ingredients which acts as counter irritants and gives instant pain relief.

In the present case, a systemic approach was used to determine whether the suspected adverse reaction was due to the drug or a result of any other factor. To determine the causal relationship between gangrene and application with amrutanjan pain relief balm, Naranjo adverse drug reaction probability scale was used. Adverse drug reaction with pain and discolouration of left index finger was seen within 3 days of application of the balm and later it became blackish discoloration and was diagnosed as gangrene for which the patient had to undergo operative procedure of distal phalanx disarticulation. He was also therapeutically

treated with pre and post operatively with antibiotics and analgesics. The wound was healed and the patient was advised not to use the pain balm again. Rechallenge of the drug was not done due to ethical issues. No differential diagnosis could be made for this condition. Hence, it was considered that gangrene was probably caused by amrutanjan pain balm (Naranjo scale +6).<sup>[4]</sup> The World Health Organization-Uppsala Monitoring Centre causality assessment criteria also indicated a probable relation. Modified Hartwig and Siegel scale<sup>[5]</sup> scored a severity of level 5, since the patient was hospitalised for 5 days and disarticulation had to be done.

This case highlights the severity of adverse reaction of gangrene caused by topically applied Amrutanjan pain balm. No similar case has been reported so far. Since it is available over the counter easily, people should be made aware of this adverse reaction.

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