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Original Research Paper

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SYMMETRICAL PERIPHERAL GANGRENE DUE TO ERGOT POISONING- A RARE CASE REPORT

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KEYWORDS :

INTRODUCTION

Symmetrical peripheral gangrene(SPG) is also known as purpura fulminans. It is a rare clinical entity where two or more extremities areinvolved without obstruction of large vessels or vasculitis. It usually affects fingers and toes and rarely tips of nose and ear lobules.

CASE REPORT

A 20 year old female presented with blackish discoloration of both foot upto the ankle and tips of middle and 4th finger of left hand since past 15 days which was insidious in onset and progressive in nature associated with intermittent and high grade fever.She had complaints of high grade fever with abdominal pain and vomiting from 28 weeks of gestation for which she went to a local hospital and subsequently diagnosed to have a IUD baby and underwent emergency LSCS for the same.

History of intake of native medications for abdominal pain and per vaginal bleeding. Pt gives history that she consulted a local Ayurvedic practioner who gave some self made preparation which she consumed for 3 days, suspected to be ergot alkaloids. 1 day after consumption of the medication her per-vaginal bleed stopped and burning sensation was felt on both foot following which blackish discolouration started.

CT angiogram- non opacification of b/l dorsalis pedis and plantar arteries. No evidence of vasculitis on imaging. **US Doppler** of b/l upper limbs were normal.

Evaluation for underlying autoimmune disease, APLA, Were negative Serologies for scrub typhus, leptospirosis and Weil felix test were negative.

No Underlying Pro-coagulant State On Investigation (PTINR was normal)

Skin biopsy from purpuric lesion in left forearm to rule out small vessel vasculitis was negative.

Initially she was managed with antibiotics and conservatively and sent home for demarcation to develop and reviewed after 20days. After 25 days, patient underwent B/L below knee amputation and disarticulation of 3rd and 4th finger of left hand at the distal inter-phalyngeal junction. Post-op period was uneventful.

DISCUSSION

• The major pharmacologic effects of the ergot alkaloids include smooth muscle stimulation, central sympatholytic activity, and peripheral alpha adrenergic blockade. Smooth muscle stimulation is most evident as vasoconstriction and as uterine contraction. Vasoconstriction appears to result from stimulation of the alpha receptors to which the drug is tightly bound, while uterine contraction results from direct smooth muscle stimulation exclusive of the alpha receptors. 'Clinical ergotism as seen today results almost exclusively from the excessive intake of ergotamine tartrate in the treatment of migraine headache. Although both gangrenous and convulsive symptoms are seen in naturally occurring ergotism resulting from the ingestion of fungus infected rye, only gangrenous ergotism has been reported following the excessive ingestion of ergotamine tartrate. The symptoms of both iatrogenic and naturally occurring ergotism appear to result from regional ischemia caused by ergot induced vasospasm. [1-2]

•Dry gangrene is commonly a result of arterial occlusion associated with limited putrefaction and absence of invasive bacterial proliferation. The onset is usually insidious and is dependent upon vascular anatomy; robust blood supply is protective while precarious blood supply served by end arteries increases susceptibility.[3]

•SPG carries a high risk of mortality and morbidity. Early diagnosis and prompt management should be done to limit the disease progression and medico-legal aspects should be kept in mind.[4]

•SPG mainly affects fingers and toes(rarely nose, ear lobes or genitalia). It may manifest in conditions associated with sepsis, low output states, vasospastic conditions, hematologic malignancies or in hyperviscosity syndrome. The mortality rate of this disease is very high and the survivors usually are undergo multiple limb amputations.[5] The most important poor prognostic factor is the presence of leukopenia.

•SPG or Purpura fulminans is a medical emergency. Rapid management of the cause of the underlying DIC may be lifesaving and limb preserving.[6]

•It has previously been associated with viral gastroenteritis and falciparum malaria.

•As most of the cases of peripheral gangrene are due to intra-vascular thrombosis or embolic phenomena, theoretically in all cases prompt anti-coagulation with heparin is adviced.[7] But as in cases of ergot poisoning the main pathology is vasospasm, the role of anti-coagulants is still controversial.

•The studies on symmetrical peripheral gangrene are minimal. Halting the disease progression, removal of causative factors, prevention of secondary infection, treatment of underlying fluid imbalances and finally removal of dead tissues are the goal of treatment. Management should involve multidiscipline approach involving multiple caregivers, such as internist or critical care specialist, hematologist, and general or orthopedic surgeons. Since the rarity of SPG cases and of high mortality rate, proper treatment guidelines should be framed based on multicenter trials.[8]

CONCLUSION

Treatment in cases of symmetrical peripheral gangrene should not only focused on the affected gangrenous parts. Efforts should be made to address the underlying pathology in order to prevent the further progression of the disease. Public awareness against the consumption of un-authorised and un-approved local medications should be created especially in rural areas of the country.

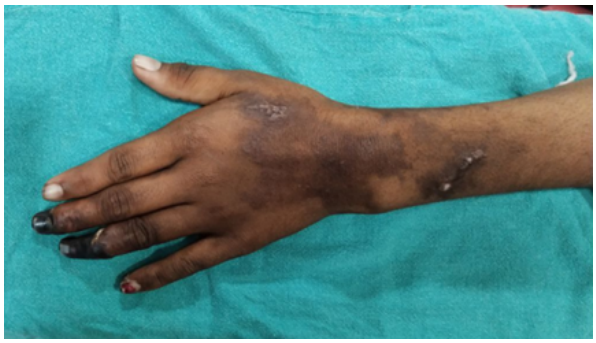

Fig 1. Gangrene Of Tips Of 3rd And 4th Fingers Of Left Hand

Fig 2. Gangrene Of Both Foot Upto The Ankle

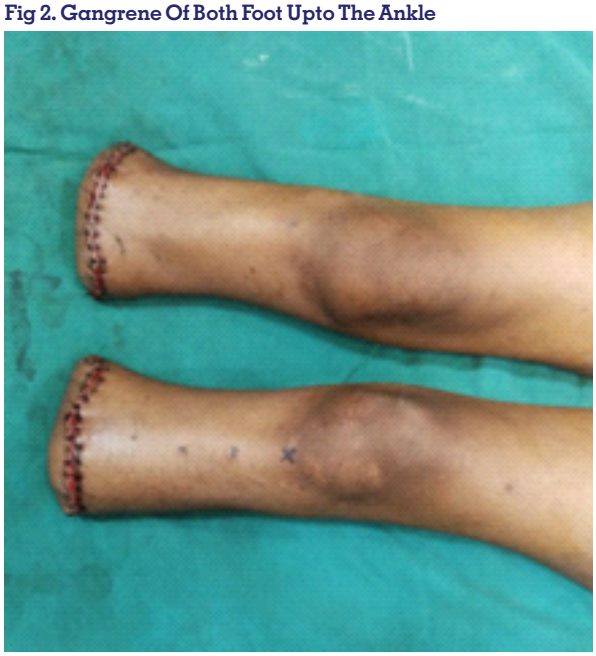

Fig 3. Post-operative Picture Of B/l Below Knee Amputation

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