

Article title:

A serious complication of topical wart treatment in the hand

Type of report: 'Case Report'

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Warts are commonly treated with topical salicylic acid, which are generally considered safe. A severe complication is reported following such use on a hand wart with open skin lesions.

Case Report

A 45 year old right handed male chef with previous history of multiple warts on his feet presented with a 2 week history of increasing pain and swelling of his left hand. During a period leading up to the pain starting, he had used salicylic acid topical preparations (12% concentration. Bazuka, Dendron Ltd, UK) (2) on his left hand for treatment of a wart in the palm. According to the patient the wart was approximately 0.5 cm in diameter and few millimetres thick. He treated the wart with regular shaving with a scalpel down to the base without any associated bleeding. This was followed by application of large amounts of the topical preparation for a week prior to onset of swelling and pain. The application was mostly twice daily but on few occasions up to three times a day and involved use of up to double the recommended dosage of the preparation which was left uncovered. He visited his general practitioner after several days complaining of pain and swelling around the wart site. His General Practitioner treated him empirically with antibiotics for 10 days with no benefit. Therefore he attended the accident and emergency department 2 weeks after the onset of the symptoms. On examination he had a healed wart site on the ulnar border of the palm (Fig. 1) with an associated collection ~50x35mm underneath and mostly to the lateral aspect of the hand which was fluctuant and tender but with no evidence of surrounding cellulitis (Fig. 2). He was afebrile and X-rays performed were normal.

Full blood count showed a normal white blood cell count but a C-reactive protein of 10. He was treated with triple antibiotics (Benzylpenicillin, Flucloxacillin and Metronidazole) intravenously. The following day he underwent formal incision and drainage of the collection (~15 ml) and muscle debridement to remove the superficial necrotic layer (Fig. 3). Samples were sent for microbiology but were all found to be negative. The wound was dressed with betadine soaked cotton gauze twice daily over the next seven days. The histology and microbiology confirmed non-specific chronic inflammation with no evidence of infection suggesting that this was a sterile abscess secondary to a chemical reaction to the salicylic acid treatment. At 48 hours after the debridement the C-reactive protein had returned to normal. Once the wound was confirmed clean the patient was treated with split skin grafting applied to the 50x 35 mm defect on the 7th day after the debridement. The patient was discharged seven days after the grafting procedure at which time both the recipient and donor site had healed. A full range of movement in all finger joints was achieved after 4 weeks at which time the patient returned to work. In total the patient stayed in hospital for 2 weeks but was off work for 4 weeks but was able to return to normal duties as a chef 6 weeks after his initial admission.

Comments

To our knowledge no previous severe adverse effects have been reported following topical treatment of warts on the hand. Previous adverse effect has been reported when topical methyl salicylate and menthol was applied for muscular pain (2). It is interesting to note that in this case the wart was successfully treated despite the resulting deep-seated inflammation of both the subcutaneous and muscle layers of the hypothenar region. The reason for this is explained by Megwa et al (3) who found that salicylates were absorbed and further distributed through the blood stream.

The possible mechanisms for this adverse reaction include increased absorption of the salicylic and lactic acid through the damaged epidermis and dermis resulting in higher concentration of salicylic acid both locally and systemically (1,4). This high concentration of salicylic acid is likely to have resulted in a reactive chemical response locally as reported by Heng (2).

We conclude that use of salicylic acid preparations for treatment of skin warts is generally safe and effective (6) in a healthy adult (5) as long as it is used on unbroken skin and only on the wart. In our case the patient ignored this clear user instruction which subsequently required two operative procedures, two weeks hospital stay and 4 weeks off work. As this product is available 'over the counter', medical practitioners should emphasise the correct use to their patient and warn against the possible severe complications.

References

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- 2 -Heng MC. Local necrosis and interstitial nephritis due to topical methyl salicylate and menthol. *Cutis* 1987; 39: 442-4
- 3 -Megwa SA, Benson HA, Roberts MS. Percutaneous absorption of salicylates from some commercially available topical products containing methyl salicylate or salicylate salts in rats. *J Pharm Pharmacol* 1995; 47: 891-6
- 4 -Pec J, Strmenova M, Palencarova E et al. Salicylate intoxication after use of topical salicylic acid ointment by a patient with psoriasis. *Cutis* 1992; 50: 307-9
- 5 -Raschke R, Arnold-Capell PA, Richeson R, Curry SC. Refractory hypoglycemia secondary to topical salicylate intoxication. *Arch Intern Med* 1991; 151: 591-3
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Legends

Fig 1. Shows the healed wart on the palm of the hand

Fig 2. Shows the collection on the ulnar border of the hand

Fig 3. Shows the area post split skin grafting