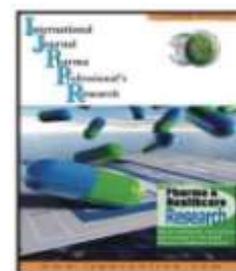




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THROMBOPHOB-INDUCED ACUTE URTICARIA: A CASE REPORT AND DISCUSSION OF THE CASE

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ABSTRACT: We present the case of a lady who was diagnosed with superficial thrombophlebitis on the dorsum of her right hand. She was 47 years old at the time of diagnosis. In order to treat her condition, a topical thrombophob ointment was applied to her skin, and she was also ordered to elevate her hand and provide cold compresses to the area. After surgery or while the patient is getting a blood transfusion, it is standard practice to give the patient thrombophob to treat any blood clots, hematomas, or phlebitis that the patient may be experiencing. Even though it is used regularly, it may produce bad consequences such as erythema on the region where it is applied; nevertheless, hypersensitive responses are not usually documented. Even though it is used frequently, it can cause negative effects such as erythema on the area where it is applied.

INTRODUCTION:

The thrombophob ointment that is applied often contains both heparin and benzyl nicotinate as active ingredients. Cadila, a firm based in India, oversees both the manufacturing and the distribution of the product. In medical contexts, the administration of thrombophob is something that is done as a matter of course. It is common practise to use topical application in the treatment of a wide range of conditions, such as phlebitis, superficial thrombophlebitis, varicose veins, bedsores, haemorrhoids, contusions, and hematomas, as well as scars. [1] Even if side effects are minor,

some individuals may report feeling uncomfortable or experiencing a burning sensation.

Heparin is a highly sulfated polysaccharide that is used by the human body in its capacity as an anticoagulant. Heparin is a linear glycosaminoglycan (GAG) that has been used for the treatment of thromboembolic conditions for many decades. [2,3] The average molecular weight of it is somewhere between 15 and 19 kilodaltons. However, during the last 10 years, there has been an increasing amount of concern about the safety and supply security of heparin. This concern has been on the rise. More than 80 individuals lost their lives as a direct consequence of a global heparin

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poisoning crisis that occurred in 2007 and 2008, and the United States was the only country affected. [4] Benzoyl nicotinate, 3-pyridine carboxylic acid phenylmethyl ester is an example of a rubefacient that has been studied. It does this by acting as a counter irritant, which gives relief to painful conditions that affect the muscles and joints, as well as other skeletal muscle issues that are not associated with the joints. The effects of benzyl nicotinate include an increase in the oxygenation of the skin, the induction of dermatitis artefacta, and the promotion of hyperemia. [5] In addition to this, it induces vasodilatation and improves the body's capability to absorb local heparin. We discuss the case of a female patient who, after using topical thrombophob ointment, had acute urticaria. The patient was 47 years old. Both benzyl nicotinate and heparin have been linked to the development of urticaria. [6] In the following, we will discuss a situation in which urticaria was brought on by benzyl nicotinate.

Case Report:

A patient, 47-year-old lady, had just concluded her second round of chemotherapy treatment. After a period of ten days, she reported feeling pain and swelling in the right hand at the region where the intravenous (IV) catheter had been put. She said this began after the IV catheter had been in place. The physicians diagnosed her with thrombophlebitis after seeing a swollen vein on her right hand and experiencing excruciating pain that travelled up her right arm. In addition to having cold compression applied to the afflicted area and having the arm elevated, the patient was given instructions to use thrombophob ointment topically twice day. She had initial redness, followed by rash, itching, and chest pain after using thrombophob ointment for one day. Her symptoms were as follows: These symptoms are shown graphically in the pictures referred to as "Fig. 1 and Fig. 2."

The reaction initially manifested itself on the dorsum of the right hand, which is the location where the intravenous line had been inserted, and then it quickly spread to the rest of the body. The patient had no history of dermatological illnesses or bad reactions to any medications, even those that were being used at the same time as other medications. Urticaria was traced back to the drug, and as a result, the dermatologist recommended that she stop using the

Research Article

thrombophob ointment. The allergic reaction was treated with topical calamine and a tablet form of pantoprazole (Panto DC) that contained 40 milligrammes and was taken once daily for ten days. In order to treat the allergic reaction, one tablet of Allegra (fexofenadine) 10 mg was taken once every day for five days. It was recommended that the patient take two tablets of Enzaflam (diclofenac, paracetamol, and serratiopeptidase) twice a day for three days. Investigations were carried out that were of a regular character. They were all well within the range of what was considered acceptable for the criteria. In order to examine the veins in the right upper limb, a colour duplex Doppler exam was carried out. The results of this exam are currently being analyzed. The patient appeared to have superficial thrombophlebitis on the dorsum of the wrist and the medial part of the forearm, which extended all the way up to the basilic vein in the arm, according to the findings from the initial examination. There was no evidence that a thrombus was present in the deep veins.

The application of thrombophob ointment was stopped, the patient showed signs of improvement during therapy, and the rash disappeared gradually over the course of four days with no adverse effects.



Fig. 1: Showing Redness At i.v Site



Fig. 2: Showing Maculopapular Rashes on arm.

Discussion:

Heparin is an anticoagulant that achieves its effect by binding to antithrombin III in a manner that is reversible. Because of this, the capacity of antithrombin III to deactivate the coagulation enzymes thrombin and factor Xa is increased, which in turn promotes fibrinolysis. It is estimated that intravenous catheters are responsible for around 75% of cases of endothelial injury and inflammation, both of which might eventually result in venous thrombosis. The topical application of heparin is a frequent kind of therapy that is used in the medical field.

One incidence of such a reaction was reported following the operation, when thrombophob was given to the blood donor after it had been performed. In this article, we discuss another situation in which thrombophobia led to a rash, urticaria, and redness. At the location where the thrombophob ointment had been applied, the donor had developed erythematous wheals that were well defined and swollen. [7] Patients who have a history of hypersensitivity to heparin and benzyl nicotinate should not take this medicine since it is not safe for them to do so. Patients who have a history of hypersensitivity should not use this medication.

In this specific situation, a rigorous technique was used in order to determine if the purportedly adverse reaction to the medication was in fact caused by the drug, or whether it was the result of some other scenario. In order to evaluate the probability of a causative relationship between urticaria and

thrombophobia, the Naranjo causality scale was used. In making our decision, we took into account the following criteria: The adverse event occurred after the probable topical administration of thrombophob in a day, and it gradually resolved itself within four days of the patient no longer receiving the medication once it had been ceased being given to them. The retest was not performed because the patient reported having chest pain, and there were also ethical issues to take into account. There were no other possible triggers that may have been the cause of the reaction, so that rules them out. Rashes and urticaria ultimately disappeared when the patient applied calamine to the affected areas and continued taking the prescribed medicine. As a consequence of this, it was determined that thrombophobia was the most probable cause of both the urticaria and the rash, and the score obtained on the Naranjo scale was found to be +6. The criteria used by the WHO-Uppsala monitoring centre to establish whether an association exists also pointed to the possibility of a relationship between the two.

This incidence exemplifies the potentially hazardous adverse effects of thrombophobic medication. Because it is most often used topically, it must to be utilised with extreme care, or an initial patch test need to be carried out, in order to prevent any unintended consequences from taking place.

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