Staphylococcal Infections and Urticaria :

*Dr. Katherine A. Witherington MD**

Summary

Nine cases of urticaria associated with serious staphylococcal infection are reported. Staphylococcal septicemia should be considered in the differential diagnosis of toxic febrile patients with urticaria even if there is no source for staphylococci.

Introduction

Staphylococcal infections range from simple superficial skin infections to fulminant septicemia with death. The diagnosis is made by gram stain and culture of infected wounds or body fluids and by blood culture. In life threatening pneumonia or septicemia the diagnosis may need to be made and treatment started from the clinical presentation alone pending confirmation by culture results.

Urticaria is usually an acute self limited pruritic dermatitis in which there are well demarcated swellings of the skin due to localized increase in vascular permeability. Causes of urticaria include allergy, infections, physical factors, emotional stress and certain systemic diseases.¹

At Patan Hospital we have noted an association between serious staphylococcal infections and acute urticaria.

* Head of the Department of Medicine, Patan Hospital, Kathmandu, Nepal.

Methods

From Fagun 2041 to Kartik 2044 all the cases of staphylococcal infection discharged from the medical service at Patan Hospital were reviewed. Over this 33 month period there were 26 seriously ill patients with proven staphylococcal infections. Eight of these patients had documented urticaria and one had a history suggestive of transient urticaria before admission. These cases are reported. Three other patients had erythematous rashes which were not typical for urticaria.

Case Reports and Results

See the following table for the details of the 9 cases of urticaria associated with serious staphylococcal infection. Four of these 9 patients died from the infection.

Discussion

Localized or systemic infections may provoke an urticarial reaction at the same time as the immune response to the infecting organism. This is most common with parasitic diseases and can also occur during the prodromal phase of hepatitis B and other viral infections. It is said that bacterial infections are much less likely to be the cause of urticaria.¹ Some drugs like morphine, codeine and thiamine stimulate mast cells to release histamine and others like salicylates enhance the urticarial tendencies.²

In the nine cases reported, the urticaria seemed to be a reaction to the infection and not an allergic or nonspecific reaction to a medication even though the patient sometimes associated the onset with taking a medication. Patient No. 3 was thought to have a penicillin allergic reaction but before and after his staphylococcal septicemia he received penicillins without any problem.

Five of the patients had an obvious source for staphylococcal infection but the other four patients did not have an obvious source. Two were initially thought to have typhoid fever and another was thought to have acute arthritis. During the 33 months period covered by these case reports there were patients with other types of gram positive and negative septicemia but only one had associated urticaria (alpha hemolytic streptococcal bacteremia).

Conclusions

Urticaria can occur during bacterial infection but it is not commonly reported. We have noticed a high incidence of urticaria (9/26) in patients with serious, life threatening staphylococcal infections. I would recommend that staphylococcal sepsis be considered in the febrile toxic patient who has urticaria even if there is no obvious source for the staphylococci and that appropriate antistaphylococcal treatment be started immediately pending culture results.

Methods

From Fagun 2041 to Kartik 2044 all the cases of staphylococcal infection discharged from medical service at Patan Hospital were reviewed. Over this 33 month period there were 26 seriously ill patients with proven staphylococcal infections. Eight of these patients had documented urticaria and one had a history suggestive of transient urticaria admission. These cases are reported. Three other patients had erythematous rashes were not typical for urticaria.

Reports and Results

See the following table for the details of the 9 cases of urticaria associated with staphylococcal infection. Four of these 9 patients died from the infection.

Discussion

Localized or systemic infections may provoke an urticarial reaction at the same time as the immune response to the infecting organism. This is most common with parasitic infections and can also occur during the prodromal phase of hepatitis B and other viral infections. It is said that bacterial infections are much less likely to be the cause of urticaria.¹ Some drugs like morphine, codeine and thiamine stimulate mast cells to release histamine and others like salicylates enhance the urticarial tendencies.²

In the nine cases reported, the urticaria seemed to be a reaction to the infection and not an allergic or nonspecific reaction to a medication even though the patient sometimes stated the onset with taking a medication. Patient No. 3 was thought to have a penicillin allergic reaction but before and after his staphylococcal septicemia he received penicillins without any problem.

Five of the patients had an obvious source for staphylococcal infection but the other four patients did not have an obvious source. Two were initially thought to have had fever and another was thought to have acute arthritis. During the 33 months period covered by these case reports there were patients with other types of gram positive and gram negative septicemia but only one had associated urticaria (alpha hemolytic streptococcal septicemia).

Conclusions

Urticaria can occur during bacterial infection but it is not commonly reported. We noticed a high incidence of urticaria (9/26) in patients with serious, life threatening staphylococcal infections. I would recommend that staphylococcal sepsis be considered in a febrile toxic patient who has urticaria even if there is no obvious source for the staphylococci and that appropriate antistaphylococcal treatment be started immediately pending culture results.