

# Deadly Heat: Cholinergic Urticaria Caused by Sauna Exposure

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## Introduction:

Anaphylaxis is a severe, life-threatening allergic reaction that can progress rapidly. On the other hand, cholinergic urticaria also presents with similar symptoms. We present a case which presented at our centre with anaphylaxis symptoms but turns out to be cholinergic urticaria.

## Case description:

An 18 years old boy was brought in by father to Emergency and Trauma Department Hospital Kuala Lumpur (ETDHKL) complaining of difficulty in swallowing and talking, post exposure to sauna. After 30 minutes in the sauna, patient noticed rashes on the trunk and periorbital swelling. Prior visit to ETD, patient took antihistamine at home. On arrival to ETD, patient was afebrile with vital sign blood pressure 127/78mmhg, pulse rate 87/min, respiration rate 18/min, oxygen saturation 98 under room air. Patient was sent to red zone and treated with steroid as well as intramuscular adrenaline. The symptoms resolved after that and patient was admitted to the medical ward for observation and discharged well on the next day.

## Discussion:

Cholinergic urticaria is a body immune reaction towards increased body temperature due to exercise, hot shower, sauna, eating spicy foods as well as hot weather. Whereas anaphylaxis is an allergic reaction occurred due to the presence of allergens. Patients can present with similar symptoms in both cases. History taking is a crucial step in differentiating between cholinergic urticaria and anaphylaxis. Cholinergic urticaria is actually very common (1 in 5 people) have this at some point in their life. Nevertheless, there is not much awareness of this condition.

## Conclusion

This case highlights the rare situation in which sauna could cause anaphylaxis symptoms like - cholinergic urticaria. This occurred in a patient that had no history of allergy in the past and in this case, with exposure of heat in a sauna. The management of such case is similar to anaphylaxis.

## Keywords

Cholinergic urticaria, sauna, anaphylaxis