

The Role of a Nurse in the Treatment of Anaphylactic Shock

By

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Introduction

Often, a Nurse is faced with an emergency; in the absence of a doctor on the spot her presence of mind and good nursing care is absolutely essential and may prove to be life-saving. Anaphylactic shock, though one of the less frequent emergencies is one in which the need for efficiency, accuracy of observation and report, and the knowledge to render the necessary treatment immediately can hardly be over-estimated. Anaphylactic reactions are the immediate shock-like and frequently fatal reactions which occur within minutes after administration of sera or drugs. Symptoms of anaphylaxis include:

- (1) apprehension
- (2) paraesthesias
- (3) generalised urticaria or oedema
- (4) choking sensation
- (5) cyanosis
- (6) wheezing
- (7) cough
- (8) incontinence
- (9) shock
- (10) dilatation of pupils
- (11) loss of consciousness
- (12) convulsions, death may occur within 5-10 minutes.

These acute reactions undoubtedly represent induced hypersensitivity. Though anaphylactic shock may occur following the administration of almost any drug, it occurs comparatively more often following the administration of sera, penicillin and other antibiotics.

Case Report

Smt. S. aged 25 years attended the out-patient department of this Hospital on 10.7.1967, she was being treated for arthritis with analgesics and Butazolidine previously, and today the first injection of Thiamine Hcl, 1 c.c. and Vitamin B 12 500 mcg. was

administered to her at the Female Out-patient department as per prescription. Within five minutes the patient returned to the doctor complaining of slight giddiness, who prescribed anti-histaminic tablets and a tranquilliser. When the patient went to the dispensary counter, she found a long queue of patients waiting for their turn and since she felt the giddiness increasing she approached me and requested me to get the tablets for her. Since she complained of giddiness I told her to sit down on one of the benches and went to get the tablets for her. When I returned with the tablets, I found her very pale, and she complained of pain in the chest and abdomen. As I was off-duty at the time, I sent for the Matron, informed our physician and made arrangements to get a stretcher-trolley immediately to take her away from the crowd of out-patients to the casualty observation room. Within seconds, the patient became cold and clammy and very restless. We shifted her on to the stretcher-trolley but before we could reach the casualty department the patient collapsed, presenting all the signs of anaphylactic shock—she lost consciousness, her pulse was imperceptible, her respiration stopped, and she became cyanosed. I immediately started artificial respiration; our physician arrived at the same time, and he immediately started mouth-to-mouth breathing. These first-aid measures were continued on the stretcher while the patient was being transported to the Physician's Room nearby. The immediate treatment was as follows:

1. Continuous oxygen inhalation
2. 25 per cent. Glucose 25 c.c. Intravenous
3. Inj. Mephentine 1 c.c.

Intravenous

4. Inj. Betenelan 1 c.c. Intravenous

5. Artificial respiration was continued for 10 minutes, after which period spontaneous respiration was resumed.

The patient's respiration was now 40/mt. shallow, pulse imperceptible, Blood Pressure could not be recorded, pupils feebly reacting to light, cardio-vascular system, respiratory system and abdomen NAD. The patient was in a semi-conscious condition. Though the patient was still in a precarious condition, there was no immediate danger. The patient was transferred to the ward.

Nursing Care and Medication

1. She was put in a warm bed.
2. The foot end of the bed was raised.
3. An adequate airway was maintained.
4. 5 per cent. Dextrose 540 ml. with Noradrenaline 4 mgms. Intravenous drip, was started at the rate of 60 drops per minute.
5. Inj. Coramine 1 amp. Intramuscular.
6. Continuous Oxygen inhalation.
7. Pulse, Respiration and Blood Pressure recorded every 15 minutes.
8. Inj. Mephentine $\frac{1}{2}$ c.c. intramuscular once in 6 hours if systolic Blood Pressure falls below 90 mm.

The patient regained consciousness after 1 hour. Pulse 120 with fair volume and tension. Blood Pressure 100/70. Respiration 30 per minute. Blood Pressure was steady, ranging between 100/70 to 110/70. So injection Mephentine was not given.

Second day

Complaint : Pruritis.

Medicines : 1. Inj. Calcileuin
1 amp. intravenous
2. Tab. Betenelan 2 T.D.S.
3. Tab. Piriton 1 T.D.S.
4. Tab. Luminal gr. $\frac{1}{2}$ B.D.
Condition : Better

Third day

Complaint : Had 3 stools with mucus, no vomiting.

Medicines : 1. Tab. Betenelan
2 T.D.S.
2. Tab. Pirition 1 T.D.S.
3. Tab. Luminal gr. $\frac{1}{2}$ B.D.
4. Mist. Bismuth Kaolin 1 oz.
T.D.S.
5. Tab. Sulphaguanadine ii
T.D.S.
Condition : Good

Fourth day

Complaint : Nil

Medicines : 1. Tab. Piriton 1
B.D.
2. Tat. Vit. C. 100 mgm.
T.D.S.
Condition : O.K.

Discharged with the advice not to take any B-complex drugs.

Conclusion

"Prevention", as always, is better than "Cure".

Before administering a potentially dangerous drug, the previous history of the patient should be determined and an accurate report given to the doctor; such drugs are not prescribed for patients with a history of asthma, and other allergic disorders unless absolutely essential, and then, only with the utmost precautions.

Patient should be closely questioned as to whether he/she was administered the drug on a previous occasion: if any allergic reaction on prior administration is reported, the drug should not be administered and the matter should be reported to the doctor immediately.

A sensitivity test should be done and in order to be useful it should be properly performed,

accurately read and correctly interpreted.

In the Anaphylactic type of Hypersensitivity, the reaction is immediate, erythema and weal formation appear within 5 to 20 minutes and disappear within 1 hour after injection or application of the allergen, the reaction is mainly a vascular one without much cellular infiltration or induration.

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