

A CASE OF HYPERHIDROSIS SUCCESSFULLY TREATED WITH 20% ALUMINIUM CHLORIDE HEXAHYDRATE IN 95% ETHYL ALCOHOL

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ABSTRACT

A 23-year old medical student presented with a history of excessive sweating from the palms and soles from the age of 16 years. He tried Propranolol but the relief lasted only 30 minutes and he developed breathing difficulty. He applied 20% Aluminium Chloride hexahydrate in 95% Alcohol during the nights and found a definite reduction in sweating. This method appears to be cheap, safe and convenient.

Keywords: Hyperhidrosis, aluminium chloride hexahydrate, iontophoresis, sympathectomy, anticholinergics.

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INTRODUCTION

We report a case of hyperhidrosis successfully treated with 20% Aluminium Chloride hexahydrate in 95% ethyl alcohol.

A 23-year old male medical student presented with a complaint of excessive sweating of the hands and soles from the age of 16 years. He found it difficult to take notes and to write during examinations as the paper gets moist very often. It was embarrassing to examine patients as sweat drips from his palm during such examinations. Clinical examination did not reveal any abnormality. His temperature was 37.2°C. He tried propranolol 10mg. bd. There was relief but it lasted for only 30 minutes and he had to abandon this as he developed breathing difficulty. He then used 20% Aluminium chloride hexahydrate in 95% ethyl alcohol. This was applied during the nights before going to bed. The hands and feet were first washed with soap and water and dried well. As 20% Aluminium chloride hexahydrate in 95% ethyl alcohol is a thin solution, 3-4 applications were made repeatedly allowing time to dry after each application. The hands and feet were washed in the morning and therefore the application was in contact for 8-10 hours. Following a similar application on the second day, he was free of sweating for a minimum period of 3 weeks, at the end of which time he repeated the course. The effect was the same on the hands and the soles. He had irritation of the hands and soles and he had to take a 4mg tablet of chlorpheniramine to minimise the irritation.

DISCUSSION

Hyperhidrosis or excessive sweating is a condition which is not very uncommon and it may be localised or generalised. Localised hyperhidrosis occurs in the palms, soles, axillae, groins and perineum. This may be emotional familial or due to a neurological disorder. Generalised hyperhidrosis is usually the result of :-

1. environmental warmth, and humidity
2. infections
3. endocrine disorders such as thyrotoxicosis or acromegaly
4. Parkinson's disease
5. pregnancy
6. menopause
7. obesity
8. ingestion of aspirin or cholinergic drugs.

Gustatory hyperhidrosis occurs in the forehead, upper lip, nose and peri-oral area, after eating spicy food and is considered to be normal. Excessive sweating at these sites also occurs in disease or trauma to the autonomic nervous system.

TREATMENT

Some patients lose a large amount of water and electrolytes which may be as high as 12 litres per day. Correction of water and electrolyte is important in these patients. Personal hygiene, keeping the body cool by wearing appropriate clothing and shoes is important to prevent fungal infections. Obesity should be corrected.

Many remedies have been tried for this condition. Anticholinergic drugs eg. Propantheline 15 mg b.d. can be used but the effects such as dry mouth, blurred vision prevent continuous usage.

Reduction of anxiety by sedatives or Beta adrenergic blockers can be tried. 20% Aluminium chloride hexahydrate in absolute alcohol applied once or twice prevents sweating for 1 or 2 weeks. Mild irritation occurs in the soles and axillae which can be minimized by applying steroid creams. The paste should be applied in the nights before going to bed and patients should be fully relaxed while applying as any sweat may wash away the

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application. The area to be treated should be dry before application of the paste.

The following are some of the other total local measures that have been tried.

- a. Application of 3% formalin soaks to the soles for 10 minutes
- b. Glutaraldehyde 10% soln buffered to pH 7.5
- c. Poldine 3-4% in methyl alcohol
- d. Iontophoresis : Some interest has been shown for the use of Iontophoresis. This requires two electrodes and a reliable source of low amperage direct current.

One electrode is placed under the area to be treated in a shallow water basin or under a pad of cotton wool

soaked in electrolytes and the other attached similarly to the other limb. This prevents sweating for 2-6 weeks after a few exposures.

More drastic measures include cervical sympathectomy for sweating of the palms and lumbar sympathectomy for sweating of the soles and finally excision of an area of skin 10 cm x 1.5cm in the axilla for relief of axillary sweating.

Considering the different methods available for the treatment of hyperhidrosis, local application of Aluminium chloride hexahydrate in 20% alcohol appears to be a safe, cheap, satisfactory, and a convenient method as it does not require any hospital visits and the paste can be easily prepared.

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