CASE REPORT

Management of Primary Hyperhidrosis with Sympathetic Block: A Case Report

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ABSTRACT

Hyperhidrosis is a condition characterized by sweating in excess of what is needed for the maintenance of physiologic homeostasis. Prevalence of this condition worldwide is approximately 3%, whereas in India it is reported to be higher, particularly in summer.¹

It is of two main types—primary and II—secondary. Type I—primary is seen in adolescents and young adults and half of these patients report a similar condition in a family member. The most common sites of excessive sweating are axilla, soles, palms, and face in that order. It is accompanied by a variety of psychologic impairments, the most common being depression, and workplace limitations.²

Type II—secondary to medical conditions such as drug intake, endocrinopathies, malignancies, or certain neurologic diseases.³

The treatment options are topical applications, oral anticholinergic medications, local botulinum toxin injections, axillary curettage, liposuction, and sympatholytic techniques, which can be either neurolytic sympathetic block or surgical sympathectomy.⁴

INTRODUCTION

Hyperhidrosis is a condition characterized by sweating in excess of what is needed for the maintenance of physiologic homeostasis. Prevalence of this condition worldwide is approximately 3%, whereas in India it is reported to be higher, particularly in summer.¹

It is of two main types—I—primary and II—secondary. Type I—primary is seen in adolescents and young adults and half of these patients report a similar condition in a family member. The most common sites of excessive sweating are axilla, soles, palms, and face in that order. It is accompanied by a variety of psychologic impairments, the most common being depression, and workplace limitations.²

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CASE DESCRIPTION

A 23-year-old man, working as a clerk in the army, visited our pain clinic with a complaint of profuse sweating in both palms and soles resulting in disturbed working conditions, such as writing and embarrassment during social interactions. These symptoms were absent during sleep and he had no family history of similar complaints. The clinical examination and investigations, such as ultrasound of abdomen, blood work-up, including thyroid studies, serum cortisol levels, and blood sugar levels were all normal. He was put on low-dose anticholinergic medications with minimum or no relief of symptoms. After a detailed discussion of pros and cons and obtaining informed written consent, he was posted for diagnostic lumbar sympathetic block, a neurolytic lumbar sympathetic block of the left side, and local anesthetic right stellate ganglion block was planned.

With the anesthetist stand by, monitoring of vital signs and under fluoroscopy, neurolytic left lumbar sympathetic block (Fig. 1), and right local anesthetic stellate ganglion block (Fig. 2) was performed. The neurolysis was performed with 6 mL phenol (6%) solution in glycerol and equal volumes of 0.5% inj. bupivacaine. This was immediately followed by the injection of a mixture of inj. lignocaine 1% (5 mL) plus inj. bupivacaine 0.25% (5 mL) into the right stellate ganglion. The patient had signs and symptoms of Horner’s syndrome such as pinpoint right pupil and hoarseness of voice for few hours. Otherwise, both procedures were uneventful.

He was counseled regarding the nature of the condition, its management, and stress reduction. The patient was discharged 2 days after the performance of neurolytic block with sweating scores of 25/100. He was advised to continue oral anticholinergic agent—1 mg of oral glycopyrrolate and 10 mg of amitriptyline per day.

REFERENCES

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fewer side-effects compared with surgery, cost-effective, and may

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results comparable to those achieved by surgery.

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13. Quayle JB. Sexual function after bilateral lumbar sympathectomy and

Fig. 1: Lumbar sympathetic block—dye spread and neurolytic drug

spread

Discussion

This patient can be labeled as primary hyperhidrosis (palmoplantar)
because of the young age of onset, focal symptoms, no sweating
during sleep, and absence of any systemic medical condition. In

some cases, the small areas of focal hyperhidrosis can be managed

by initially applying starch–iodine to the site of increased sweating,

which stains purple followed by botulinum toxin injection to

such stained areas. However, the cost of the procedure may be a

limiting factor in many patients as in this case. The other options

are radiofrequency ablation of the sympathetic ganglion and

endoscopic surgical sympathectomy. The reported rate of patient

satisfaction for surgical procedures is 65%. The side-effects include

compensatory and gustatory sweating, Horner’s syndrome and

neuralgia, which in some cases may be worse than earlier problems.

Sympathetic blocks can be used when focal hyperhidrosis affects a

relatively large area and the patient does not wish to undergo surgical

Treatment. It has the advantage of being relatively safe with minor side-

effects such as bleeding, groin pain (due to genitofemoral neuropathy),

and the potential risk of damaging vital neural or vascular structures.

Kim et al. in a study of 69 patients who underwent lumbar chemical

sympatholytic block for plantar hyperhidrosis reported that 56 patients

(81.1%) were partially or fully satisfied with the results. Dondelinger

and Kurtziel performed T3 level sympathetic neurolytic block on

12 patients using CT guidance for palmar hyperhidrosis and reported

results comparable to those achieved by surgery.

Bilateral sympathectomy or sympathectomy is not advisable in

one sitting due to the risk of severe hypotension and loss of sexual

function as observed by Quayle. We feel in this patient, the oral

medications, which were not very useful earlier were probably
effective now due to additive effect of the sympatholytic block.

Conclusion

Hyperhidrosis is a less known condition that causes psychologic
and social impairment. The sympathetic blockade is safe, with

fewer side-effects compared with surgery, cost-effective, and may

be an additional option of treatment along with a multidisciplinary

approach.

What was Known

Sympathetic blocks help in hyperhidrosis.

What is New

• Sympathetic neurolysis can be used for primary hyperhidrosis

affecting a relatively larger body area.

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