

Primary hyperhidrosis: A black hole in medicine

A retrospective analysis of investigations and treatment in patients with primary hyperhidrosis

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Introduction

Hyperhidrosis or excessive sweating, is a debilitating disease. In the UK the prevalence is 1%.

Hyperhidrosis can either be generalised or focal. Primary focal hyperhidrosis may affect the axillae, hands, feet, face, or scalp, and has no underlying cause. NICE guideline 'Hyperhidrosis' July 2017 provides recommendations for investigations and treatment options¹. Characteristic presentations do not require further investigation. Secondary causes are listed but specific investigations required remains unclear.

Treatment for topical hyperhidrosis include: Aluminium chloride hexhydrate, Iontophoresis and Botulinum Toxin A. Systemic therapies include: Oxybutynin, Propanthione and Glycopyrolate. Surgical intervention options are: local excision of axillary vault, removal of axillary sweat glands and endoscopic thoracic sympathectomy.

The aim of this audit was to understand how idiopathic hyperhidrosis is assessed, diagnosed and managed in secondary care.

Method

The cohort included patients presenting to Lancashire Teaching Hospital NHS trust outpatient endocrine clinics, in the last 5 years.

Patients were selected using the 'ALMA' browser, a data bank of clinical letters. The search term 'hyperhidrosis' was used to identify potential patients. Recruitment ended when 50 records were obtained.

Records were then assessed to see if the following investigations had been completed: Full Blood Count, Urea and Electrolytes, Liver Function Tests, Thyroid Function Tests, glucose/Hba1c, HIV test, 24 hour urinary catecholamines, gonadotrophin test, infectious disease screen, CRP/ESR and Chest radiograph.

Treatment options and failures were also analysed. NICE guideline 'Hyperhidrosis' (July 2013) was used as the gold standard.

Results

50 patients presented with hyperhidrosis to an endocrinology clinic in 3.6 years. 33 (66%) were women and 17 (34%) men. Mean age was 54.2 years. Modal age was 68 years. Modal age group for men was 41-50 years and for women was 61-70 years.

34 patients (68%) were diagnosed with primary hyperhidrosis. 74% were female (25).

1 patient did not have a diagnosis.

No patient had all investigations completed.

No patient was screened for infectious disease.

44 patients had an FBC, 44 had urea and electrolytes, 45 had LFT's, 49 had TFT's, 40 had glucose/hba1c, 34 had urinary catecholamines, 32 had gonadotrophins, 38 had a CRP or ESR, and 11 patient had a chest radiograph.

In patients diagnosed with primary hyperhidrosis, abnormalities were most commonly detected in thyroid function tests (23%) and gonadotrophins (26%).

Treatment for idiopathic hyperhidrosis was offered to 26 patients. Oxybutynin was the most commonly trialled medication. Surgical intervention of any kind, was not offered to any patient.

Chart 1. Patients referred with hyperhidrosis

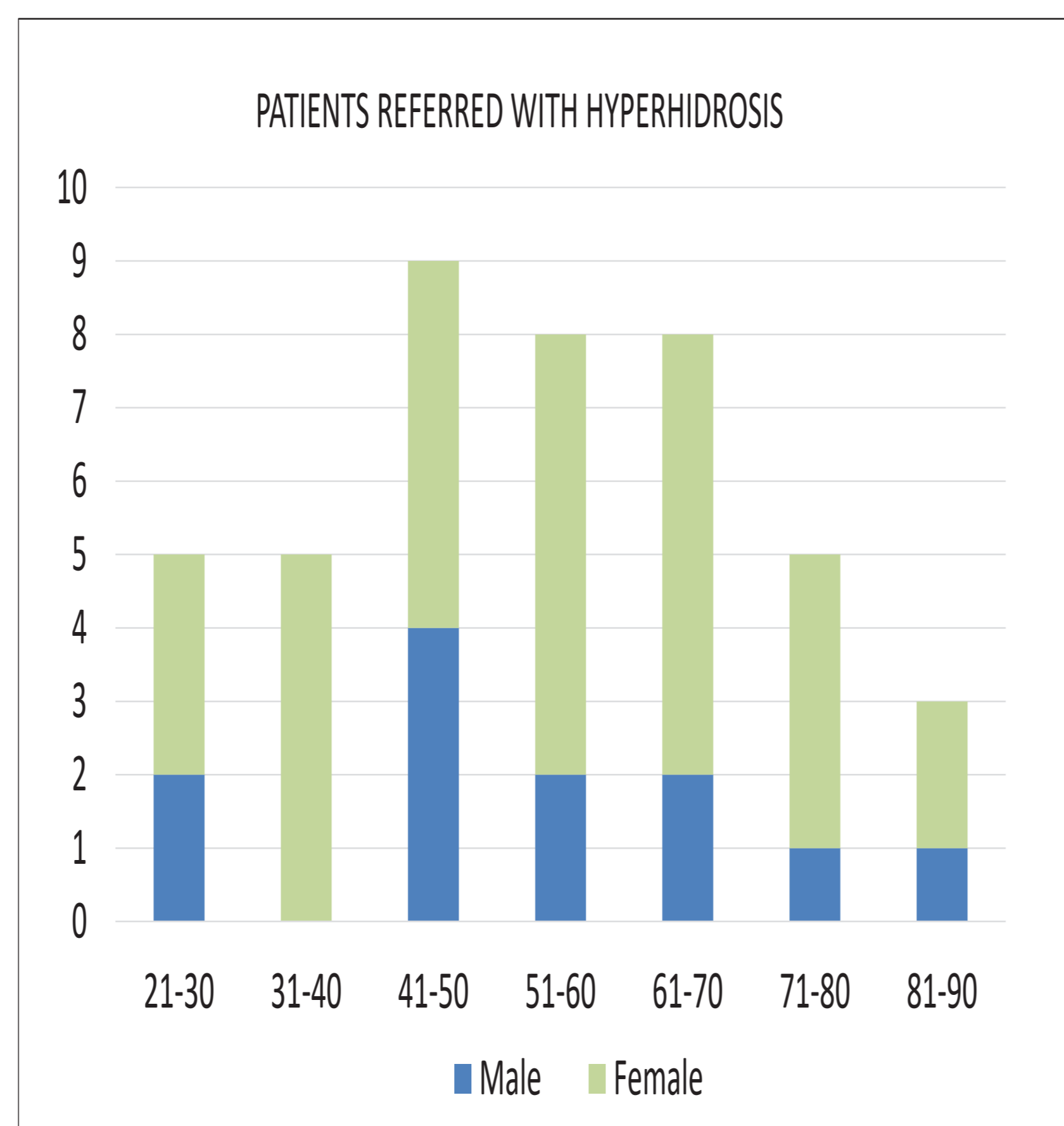


Chart 2. Results of investigations from patients referred with hyperhidrosis

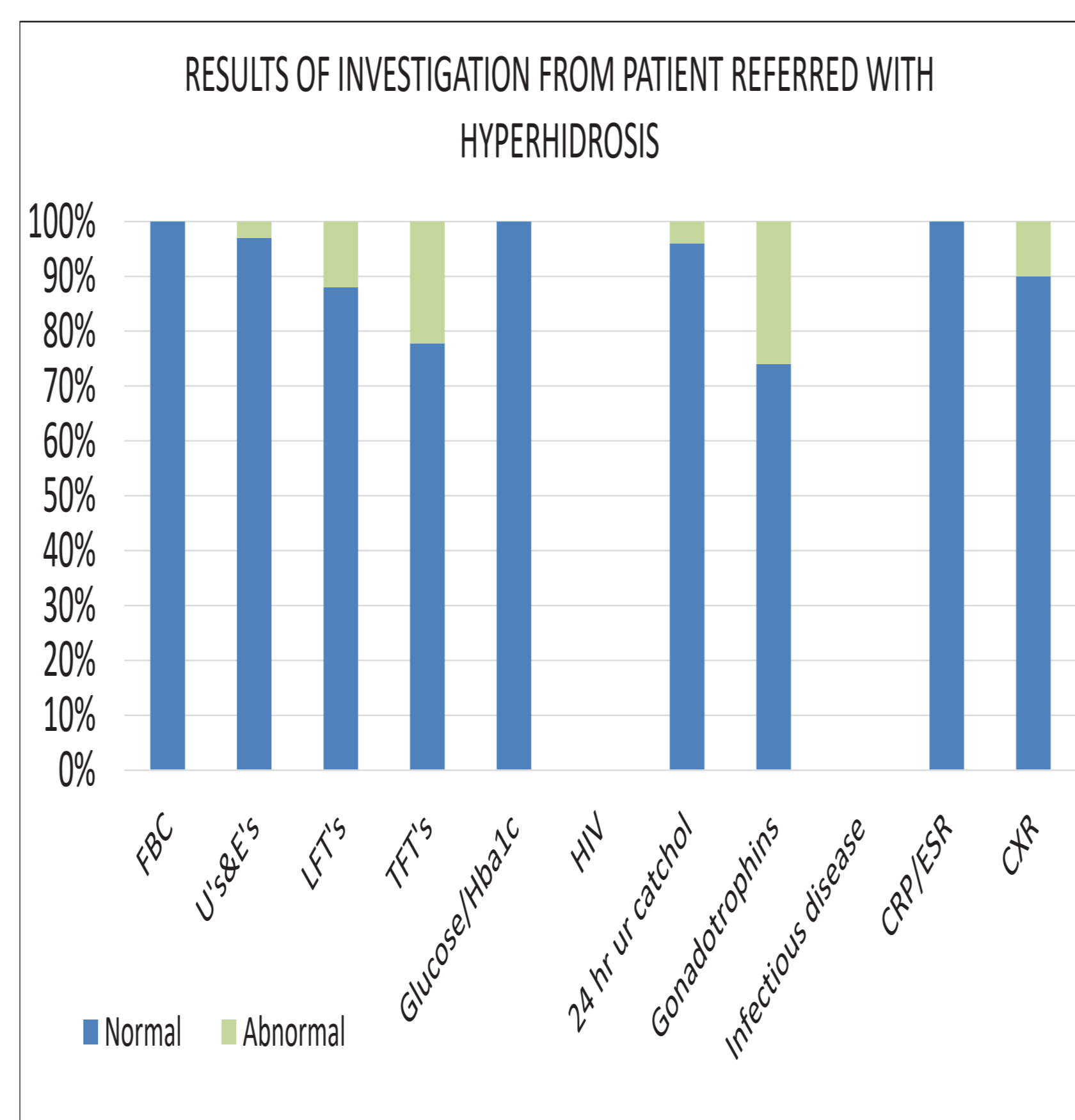


Chart 3. Treatment options trialed in patients with hyperhidrosis

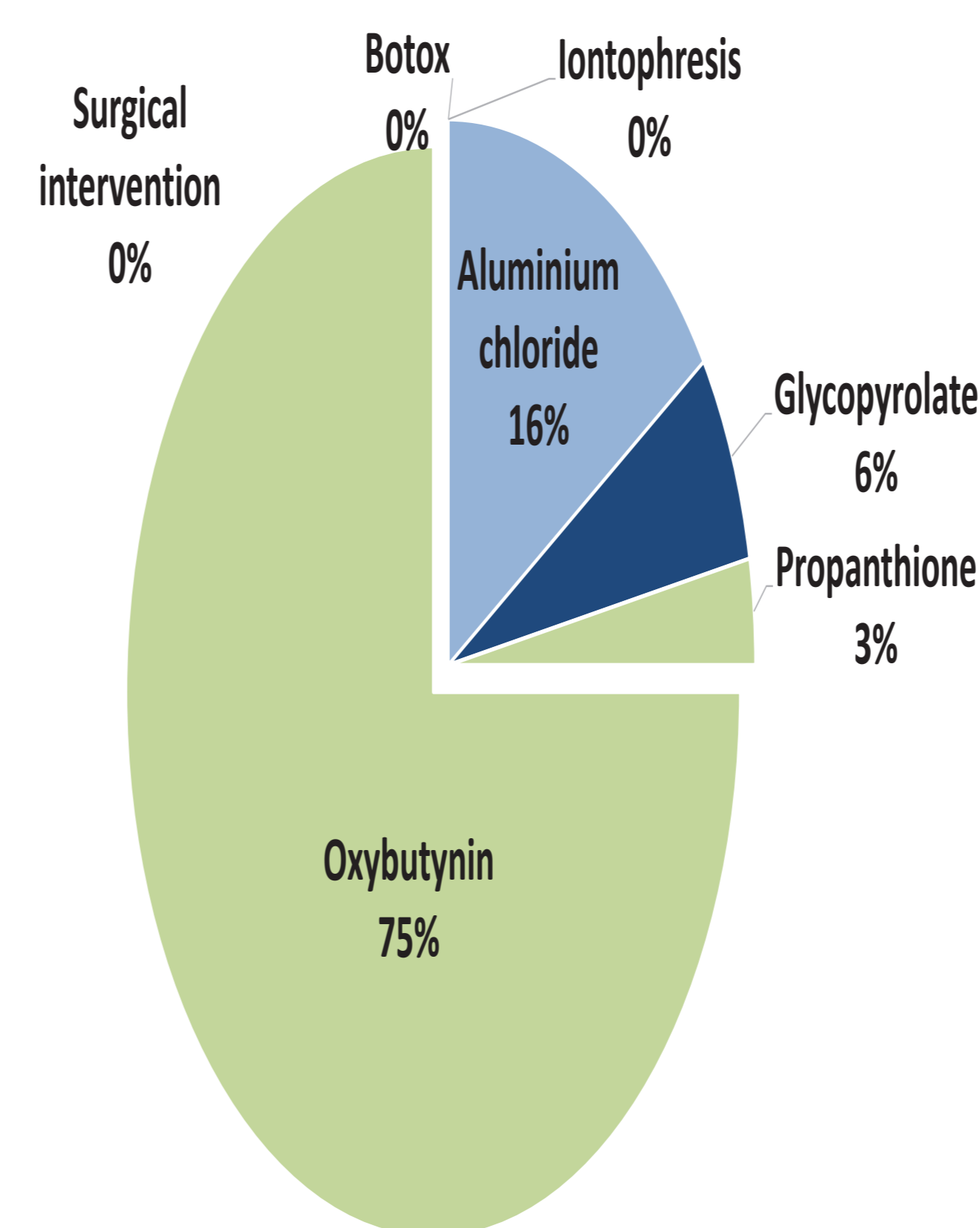


Chart 4. Treatment efficacy in patients with hyperhidrosis

TREATMENT	NO. OF PATIENTS TRIALLED	TREATMENT EFFECTIVE?		
		Yes	No	N/A
Aluminium chloride	6	1	3	2
Oxybutynin	24	8	5	11
Glycopyrolate	2	1	0	1
Propanthione	1	1		
Botox	0			
Removal of sweat glands	0			
Endoscopic sympathectomy	0			
Iontophoresis	0			

Discussion

Investigations for hyperhidrosis were generally well completed except for chest radiographs and infectious disease screening. This is likely to be due to a low risk population; therefore testing is not routinely warranted.

Thyroid function tests and gonadotrophin tests were most commonly found to be abnormal. Abnormal results may reflect the age group of the cohort who are likely to be undergoing menopause and have derangement in gonadotrophins. Gonadotrophins may therefore be of little use when tested in this age group.

Oxybutynin appears to be the most effective medical intervention at doses of 2.5mg once a day and twice a day. This is supported by previous studies^{2,3}.

Severity of symptoms is difficult to accurately measure due to lack of an efficient scoring system, therefore efficacy of treatment is subjective. The hyperhidrosis disease severity scale (HDSS) has been found to have acceptable validity, reliability, and responsiveness as a scoring tool⁴.

Conclusions

30% of patients presenting with hyperhidrosis are diagnosed with secondary hyperhidrosis, therefore it is important to complete baseline investigations. The development of a pathway may improve this.

The HDSS should be incorporated into clinical practise to improve assessment of disease severity.

Further, interpretation of results regarding effective therapies is incomplete as long-term outcomes could not be evaluated due to lack of follow-up and a longitudinal study may provide accurate information.

Oxybutynin could be initiated as first line therapy and dose titrated upto 5mg a day or until symptom improvement.

Systemic and surgical interventions including botox could be considered earlier in the management of patients with hyperhidrosis.

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Acknowledgements

Professor Rajbhandari