



The Outpatient Prescribing Pattern of Hyoscine-N-Butylbromide in Alkharj

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Authors' contributions

This work was carried out in collaboration between both authors. Author NJA designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author NJA managed the analyses of the study. Author MAM managed the literature searches. Both authors read and approved the final manuscript.

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ABSTRACT

Objective: This study aims to assess the prescribing pattern of hyoscine butylbromide in outpatient department in Al Saih.

Methods: This is a cross-sectional study that was conducted in Al Saih city. The data were collected from electronic records retrospectively in the outpatient setting of a public hospital.

Results: A total of 784 patients received hyoscine butylbromide during the study period. More than half of the patients were in the age level of 20-39 years (51.53%). Hyoscine-N-Butylbromide was prescribed mainly as a tablet (91.71%) followed by syrup (7.91%). Most of the prescriptions were written by the emergency department (96.17%).

Conclusion: The present study showed that hyoscine butylbromide was commonly prescribed. It was uncommonly prescribed to elderly patients. A continuous assessment of its prescribing is required to prevent its adverse events and drug interactions.

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1. INTRODCUTION

Antispasmodics are drugs that relieve, prevent, or lower muscle spasms incidence, especially those of smooth muscle such as in the wall of the bowel [1]. They are a broad group of drugs that act on acetylcholine; a neurotransmitter [2].

Hyoscine butylbromide was first marketed in 1952 in Germany, and has since become available globally; as a prescription drug in some countries and as an over-the-counter medicine in many countries [3]. Hyoscine butylbromide is an antimuscarinic antispasmodic that relieves painful stomach cramps, including those linked with irritable bowel syndrome. It can also be used for period pain and bladder cramps and available as a tablet dosage forms [4,5]. This medicine works very quickly and may cause an effect within 15 minutes. It rarely causes side effects, but in some patients it may cause a dry mouth, blurred vision and constipation [5].

Inappropriate prescribing is highly prevalent and has become a worldwide healthcare problem because of its association with several negative health outcomes including hospitalization, adverse drug events and healthcare resource utilization [6]. The inappropriate prescribing of drugs impacts on health and economy of individual and the society negatively [7].

It is important to ensure that the medications are prescribed correctly; especially the most common prescribed drugs such as hyoscine butylbromide. Therefore, this study aims to assess the prescribing pattern of hyoscine butylbromide in out-patient department in Al Saih.

2. METHODOLOGY

This is a cross-sectional study that was conducted in Al Saih city. Al Saih is located in the southeast of the capital Riyadh. Prescription data was collected from electronic records retrospectively in the outpatient setting of a public hospital.

All patients who received hyoscine butylbromide between 1st of July till the 31th of December 2018 in the outpatient setting were

included. So, the medical records of patients who didn't receive hyoscine butylbromide and the records of patients in inpatient and other settings were excluded from the study.

3. RESULTS AND DISCUSSION

A total of 784 patients received hyoscine butylbromide during the study period. Most of them were females (54.59%). More than half of the patients were in the age level of 20-39 years (51.53%). Patients' personal data are shown in Table 1.

Hyoscine-N-Butylbromide was prescribed mainly as a tablet (91.71%) followed by syrup (7.91%). Dosage forms of the prescribed Hyoscine-N-Butylbromide are shown in Fig. 1.

The prescriptions were written by residents (99.11%); only 0.89% of the prescriptions were written by a consultant or a specialist. The level of the prescribers is shown in Table 2.

Most of the prescriptions were written by the emergency department (96.17%) followed by general surgery department (1.53%). The prescribing departments are shown in Table 3.

Hyoscine butylbromide was prescribed commonly during the study period. Al-Faris and Al Taweel [8] reported that in Saudi primary health care, Hyoscine N-butylbromide was the most commonly prescribed medication for stomach disorders (32.7%) followed by antacids (24.1%). Devkota et al. [9] stated that the most frequently prescribed medications for pregnant patients were ranitidine, hyoscine butylbromide and paracetamol. Furthermore, another study found that the most frequently prescribed gastrointestinal drugs were omeprazole, metoclopramide, bisacodyl and hyoscine-N-butyl bromide [10].

Yezli et al. [11] reported that among outpatients during the Hajj mass gathering, Top of form Hyoscinebutylbromide prescribed for 1388 patients out of 37,367 patients (3.71%). Sharif et al. [12] conducted a study about the drug prescribing in a hospital in dubai and reported that 11.5% of the prescriptions included gastrointestinal drugs and that hyoscine N butylbromide represented 28.1% of all gastrointestinal drugs.

In the present study, hyoscine N butylbromide was prescribed mainly for adult patients and about 5.74 % only aged more than 59 years. Sah et al. reported that anticholinergic hyoscine butyl bromide represented 10.44% of the potentially inappropriate prescribing medications in elderly population [13]. They stated that according to Beers criteria, category A includes drugs those should be avoided in elderly and should not be prescribed and included several drugs including anticholinergic hyoscine butyl

bromide [13]. The limitation of the study is that there was no diagnosis in the medical records.

A continuous assessment of its prescribing is required to prevent its side effects including dry mouth, constipation, blurred vision, and fast heart rate. In addition to serious side effects such as if the patients get a painful red eye with loss of vision or if find it hard to pee. Moreover, some patients may develop serious allergic reaction to it [5].

Table 1. Personal data

Variable	Category	Number	Percentage
Gender	Male	356	45.41
	Female	428	54.59
Age	Less than 10	35	4.46
	10-19	144	18.37
	20-29	234	29.85
	30-39	170	21.68
	40-49	101	12.88
	50-59	55	7.02
	More than 59	45	5.74

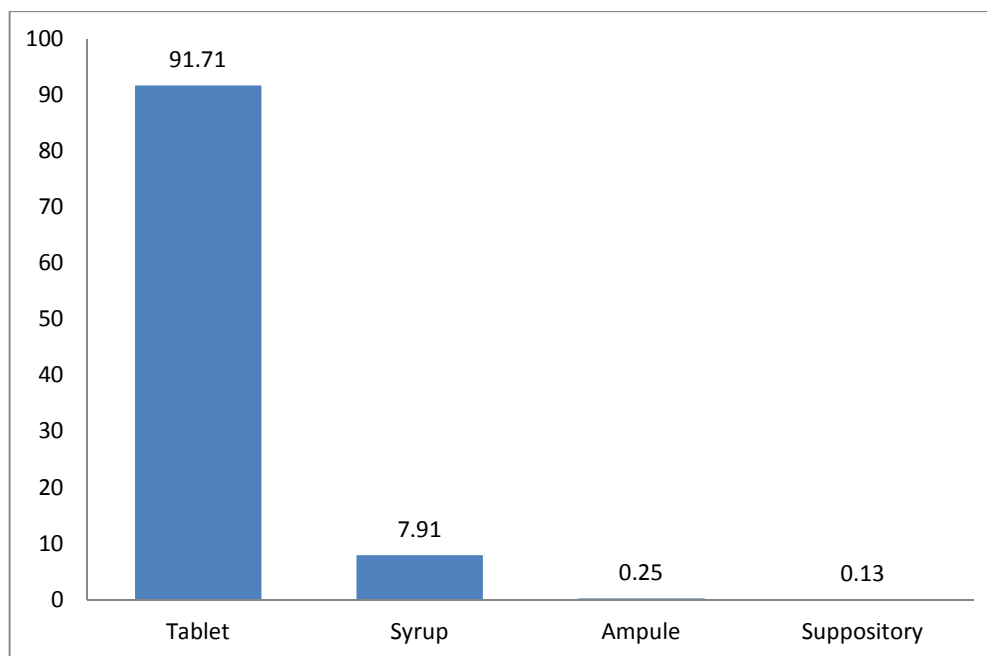


Fig. 1. Dosage forms of the prescribed Hyoscine-N-Butylbromide

Table 2. The level of the prescribers

Level of the prescriber	Number	Percentage
Consultant	5	0.64
Resident	777	99.11
Specialist	2	0.25

Table 3. The prescribing departments

Department	Number	Percentage
Emergency	754	96.17
Gastroenterology	1	0.13
General Surgery	12	1.53
Internal Medicine	2	0.25
Nephrology	6	0.77
Obstetrics & Gynecology	6	0.77
Pediatrics	2	0.25
Urology	1	0.13

4. CONCLUSION

The present study showed that hyoscine butylbromide was commonly prescribed. It was uncommonly prescribed to elderly patients. Health care professionals should avoid the use of anticholinergic hyoscine butylbromide in elderly patients. A continuous assessment of its prescribing is required to prevent its adverse events and drug interactions.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

The study was approved by the IRB ethical committee with a log number 20-131E. After collecting data, they were entered and analyzed using Excel sheet and were represented as percentages and frequencies.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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