

Original Research Article

The Outpatient Prescribing Pattern of Norethisterone in Al-Kharj

ABSTRACT

Aim: This study was conducted to demonstrate the prescribing pattern of norethisterone in Al-Kharj.

Methodology: This is a retrospective study includes evaluating outpatient prescribing of norethisterone from 1st of January 2018 to 30th of June 2018 in a public hospital in Alkharj.

Results: The age of about 31.03% of the patients who used norethisterone was between 40 and 49 years, the age of 24.14% of them was between 30 and 39, and the age of 24.14% of them were between 20 and 29 years. About 31.03% of the patients used norethisterone for 3 weeks and 17.24% of them used norethisterone for 10 days. Most of the prescriptions that contained norethisterone were prescribed by obstetrics and gynecology department (68.97%).

Conclusion: The prescribing of norethisterone was uncommon in the outpatient setting due to the availability of several alternative drugs. Further studies are needed to investigate the prescribing of norethisterone and its alternatives by the different settings.

Keywords: Norethisterone, pattern, prescribing, use

INTRODUCTION

Norethindrone (norethisterone) is one of the frequently used medication. In the UK, more than 794 000 prescriptions are written for therapeutic (as opposed to contraceptive) use of norethisterone annually [1]. it is used on its own or in combination with estrogen derivatives and used in hormone

replacement therapy, contraception [2-6] and in the treatment of hormone-mediated illnesses such as endometriosis [6]. Moreover, it can be used as a test to see if the body is producing certain female hormones [7].

Norethisterone is available as a tablet to take by mouth and is taken on different schedules that depend on the condition that is being managed and on how well norethindrone works to manage the conditions [7]. It is used at low dose for treating dysfunctional uterine bleeding, polymenorrhoea, menorrhagia, metropathia, haemorrhagia, pre-menstrual syndrome, and postponement of menstruation but is used at high dose for treating disseminated carcinoma of the breast [8].

There are several side effects that could be resulted from the use of norethindrone. The most common side effects include irregular vaginal bleeding or spotting, breast pain or swelling, headache, hair loss, stomach pain, bloating, vomiting, nausea, trouble sleeping, depressed mood, vaginal itching or discharge, and weight gain [9]. Sundström et al reported that the use of high-dose norethisterone were associated with an increased risk of venous thromboembolism [10].

To improve the prescription quality and to promote the rational use pattern, there is an important need to investigate the different factors that affect physicians' prescribing patterns. It is important to know the prescribing pattern of norethisterone to ensure that it is prescribed and used appropriately. So, this study was conducted to demonstrate the prescribing pattern of norethisterone in Al-Kharj.

METHODOLOGY

This is a retrospective study includes evaluating outpatient prescribing of norethisterone from 1st of January 2018 to 30th of June 2018 in a public hospital in Alkharj that is a city in Saudi Arabia that include about 425,300 persons.

The inclusion criteria include the prescriptions that contain norethisterone during the study period and the exclusion criteria include the prescriptions

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before 1st of January 2018 or after 30th of June 2018 and the prescriptions that didn't contain norethisterone.

The data include personal information, prescribing months, duration of use, the level of prescribers, and the prescribing departments.

The data were collected and analyzed using excel sheet and the descriptive data were represented as frequencies and percentages.

RESULTS and DISCUSSION

Only 29 patients received norethisterone during the study period. Most of them were Saudis (72.41%). The age of about 31.03% of the patients was between 40 and 49 years, the age of 24.14% of them was between 30 and 39, and the age of 24.14% of them were between 20 and 29 years. The personal data of the patients are shown in table 1.

Table 1. The personal data of the patients.

| Variable | Category | Number | Percentage |
|-------------|------------|--------|------------|
| Age | 10-19 | 2 | 6.90 |
| | 20-29 | 7 | 24.14 |
| | 30-39 | 7 | 24.14 |
| | 40-49 | 9 | 31.03 |
| | 50-59 | 4 | 13.79 |
| Nationality | Saudi | 21 | 72.41 |
| | Non- Saudi | 8 | 27.59 |

About 24.14 % of the patients received norethisterone in February and 20.69% of them were prescribed in June. Number of patients received norethisterone in the different months of the study is shown in table 2.

Table 2. Number of patients received norethisterone in the different months.

| Month | Number | Percentage |
|----------|--------|------------|
| January | 3 | 10.34 |
| February | 7 | 24.14 |
| March | 5 | 17.24 |
| April | 4 | 13.79 |
| May | 4 | 13.79 |
| June | 6 | 20.69 |

About 31.03% of the patients used norethisterone for 3 weeks and 17.24% of them used norethisterone for 10 days. Duration of norethisterone use is shown in table 3.

Table 3. Duration of norethisterone use.

| Duration | Number | Percentage |
|--------------------|--------|------------|
| 5 Days | 1 | 3.45 |
| 1 Week | 4 | 13.79 |
| 10 Days | 5 | 17.24 |
| 15 Days | 4 | 13.79 |
| 3 Weeks | 9 | 31.03 |
| 1 Month | 2 | 6.90 |
| 2 Months | 1 | 3.45 |
| More than 2 Months | 3 | 10.34 |

Most of the prescriptions that contain norethisterone were written by residents (96.55%). The level of prescribers is shown in table 4.

Table 4. The level of prescribers.

| Prescribers Level | Number | Percentage |
|-------------------|--------|------------|
| Specialist | 0 | 0.00 |
| Resident | 28 | 96.55 |
| Consultant | 1 | 3.45 |

The departments that prescribed norethisterone are shown in table 5. Most of the prescriptions that contained norethisterone were prescribed by obstetrics and gynecology department (68.97%).

Table 5. The prescribing departments.

| Department | Number | Percentage |
|-------------------------|--------|------------|
| Obstetrics & Gynecology | 20 | 68.97 |
| Emergency | 9 | 31.03 |
| Total | 29 | 100 |

The use of norethisterone was uncommon during the study period. This could be due to the availability of several alternative drugs. Ahmed et al reported that regarding the prescribing of medicines in obstetrics and outpatient gynecology of a public hospital, the most commonly used medications of hormone-mediated illnesses were dydrogesterone and hydroxyprogesterone [11]. Baig et al reported that among hormonal preparations that were prescribed in the outpatient gynecology department of a tertiary care hospital, oral contraceptive pills were commonly prescribed followed by cyclical progesterone [12].

The age of more than half of the patient was more than 29 years and this is rational because norethisterone is used mainly for contraception or in the treatment of hormone-mediated illnesses. Most of the prescriptions that

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contained norethisterone were prescribed by obstetrics and gynecology department.

More than 31% of the patients used norethisterone for 3 weeks and 17.24% of them used norethisterone for 10 days. This is rational because for several indications it is used for 10 days such as in the treatment of dysfunctional uterine bleeding and for other indications it could be used for more than 10 days such as in its used to Postpone the menstruation; the dosage of it is one tablet three times daily, starting 3 days before the expected onset of menstruation and continuing for not longer than 10 to 14 days [11]. About 10.34% of the patients used norethisterone for more than 2 months, these patients may use it for the treatment of Endometriosis because in the treatment of Endometriosis norethisterone is used for at least 4 to 6 months [13].

Conclusion

The prescribing of norethisterone was uncommon in the outpatient setting due to the availability of several alternative drugs. Further studies are needed to investigate the prescribing of norethisterone and its alternatives by the different settings.

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