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## Introduction

Pharmacist-led olaparib patient education service for ovarian cancer patients has not been well studied. The aim of the study was to establish a pharmacist-led patient education program, analyze the profiles of adverse drug reactions (ADRs) of olaparib, and demonstrate the roles of pharmacists in identifying and managing drug-related problems.

## Methods

Ambulatory adult patients with ovarian cancer receiving olaparib were prospectively enrolled from November 2019 to March 2021. At least one patient education session was conducted by clinical pharmacists during olaparib treatment. Pharmacists collected data on the type and grade of ADRs, drug adherence, olaparib dosing, concomitant medications, and pharmacists' suggestions.

## Results

1. 83 patients were enrolled with the median age of 58. The average number of the patient education sessions provided to each patient was 1.31, and the average duration of each patient education was 17.78 minutes.
2. The olaparib starting dose for most patients (97.59%) was 600mg/d. 36.14% of the patients had missed olaparib doses and 27.71% of the patients had dose adjustments due to ADRs.
3. The most common ADRs (incidence $\geq$ 10%) were: fatigue (40.96%), anemia (36.14%), leukopenia (36.14%), nausea (28.92%), thrombocytopenia (16.87%), anorexia (16.87%), dyspepsia (15.66%). The tolerability profiles were generally similar between patients treated for "first-line maintenance" and those treated for "recurrence maintenance" ( $p > 0.05$ ).

4. There were 42% of the patients who were concomitantly taking medications without exact chemical contents (such as formulated Chinese medicines and Chinese decoctions), and common types of concomitant medications with exact drug names were antihypertensive, anti-hyperglycemic, and anti-hyperlipidemic medications.
5. The pharmacists identified 4 clinically significant drug-drug interactions (DDIs) in two patients.
6. Pharmacists made 196 suggestions mainly related to rational use of the medications and management of ADRs.

## Conclusion

The study provides the first report about pharmacist-led patient education service for olaparib. The types of ADRs were similar to those previously observed in clinical trials, and the profiles of ADRs in different types of patients (first-line maintenance vs. recurrence maintenance) were also similar. Pharmacists identified drug-related problems (such as adherence, DDIs and management of ADRs) and offer suggestions for the patients.

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