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Letter to the Editor

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# Hyperthermic intraperitoneal chemotherapy in gynecologic oncology: current evidence and national perspectives from Turkiye

İlyas Turan
Department of Gynecologic Oncology, Batman Training and Research Hospital, Batman, Turkiye

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**Corresponding Author**: İlyas Turan, ilyasturan04@gmail.com

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**Dear Editor,**

I am writing this letter because I have observed that publications on hyperthermic intraperitoneal chemotherapy (HIPEC) in gynecologic oncology in our country are insufficient.[1-3] The article in question is particularly important as it thoroughly addresses HIPEC, a method that is gaining increasing importance in the surgical treatment of gynecologic malignancies.

The purpose of my letter is to open a discussion on several points regarding the role of HIPEC in gynecologic oncology under the conditions of our country, inspired also by the most recent international publications. In gynecologic malignancies, particularly advanced ovarian, tubal, and peritoneal cancers, HIPEC administered after optimal cytoreductive surgery has been shown, in randomized controlled trials such as OVHIPEC-1 and CHIPOR, to significantly improve progression-free and overall survival.[4,5] These data provide a promising strategy for selected patients following interval debulking surgery and in recurrent disease.

However, there are several country-specific challenges for integrating this technique into routine clinical practice. Chief among them are the standardization of HIPEC application, high patient volume, and the requirement for an experienced multidisciplinary team, including gynecologic oncologists, surgical oncologists, medical oncologists, and anesthesiologists. This team must work in a coordinated manner not only during surgery but also before and after the procedure. Critical parameters such as the choice and dosage of chemotherapeutic agent, perfusion duration, liver and kidney function tests, patient performance status, HIPEC-related complications, and their management must be carefully planned and managed.

Although randomized data support the oncologic benefit of HIPEC in selected settings, its implementation must be done with careful consideration of procedure-related morbidity. Complications may arise both from extensive cytoreductive surgery and from the intraperitoneal administration of heated cytotoxic agents. Reported adverse events include anastomotic leakage, ileus, intra-abdominal abscess, and fistula formation; as well as hematologic toxicity (neutropenia, thrombocytopenia), renal impairment—particularly with cisplatin-based regimens—hepatotoxicity, electrolyte imbalance, and perioperative hemodynamic instability. Nevertheless, in large phase III trials such as OVHIPEC-1 and CHIPOR, the incidence of grade 3–4 complications did not differ significantly between the HIPEC and control arms, supporting the feasibility and safety of the procedure when performed in high-volume centers with standardized perioperative protocols.[4,5]

Risk factors that increase HIPEC-related morbidity include poor performance status (ECOG ≥2), hypoalbuminemic malnutrition, prolonged or multi-anastomotic cytoreductive procedures, pre-existing renal impairment, high intraoperative transfusion requirements, and extensive peritoneal stripping in high tumor burden disease.

Prevention strategies focus on meticulous perioperative optimization; these include aggressive hydration with diuresis and magnesium supplementation when cisplatin is used, adherence to standardized HIPEC protocols (typically single-agent cisplatin for 60–90 minutes), ERAS-based perioperative management, structured prehabilitation and nutritional optimization, and predefined complication-management algorithms. Above all, strict patient selection remains the most effective determinant of safety.

Considering all these details, the application of HIPEC by experienced centers and teams will yield more beneficial outcomes. Moreover, patients should be thoroughly informed about the procedures to be performed and potential complications as part of the center's multidisciplinary team.

At this point, another important need in our country is the conduct of national, multicenter clinical studies. The existing literature largely relies on data from international centers. Establishing national databases that include the characteristics of our patient population, morbidity-mortality rates, and long-term survival outcomes, and developing national guidelines based on these data, will facilitate the safe and effective application of this technique with proper patient selection.

Additionally, together with Prof. Dr. Evrim Erdemoğlu, we have data on nearly 50 patients treated with optimal cytoreduction followed by HIPEC protocols, and our results are consistent with international literature. Our study is ongoing, and we believe that its scientific outcomes will contribute to both the literature and our country.

In conclusion, HIPEC is a method that provides a valuable contribution to surgery in gynecologic cancers, particularly ovarian cancer, in selected patients. Promoting the widespread adoption and standardization of this technique in Turkiye should prioritize inter-center collaboration and the development of national protocols and guidelines. I believe that further discussion of this topic in prestigious journals such as Journal of Controversies in Obstetrics & Gynecology and Pediatrics will accelerate these efforts.

Thank you for your time and consideration. I wish you continued success in your work.

Sincerely,

## ETHICAL DECLARATIONS

### Referee Evaluation Process

Externally peer-reviewed.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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### Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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**İlyas Turan**

I obtained my medical degree from Trakya University Faculty of Medicine in 2009. I completed my obstetrics and gynecology specialization at Pamukkale University Hospital in 2016. I practiced as an obstetrician and gynecologist in various eastern provinces of Turkey until 2018. I finished my gynecologic oncology surgery subspecialty training in Süleyman Demirel University Training and Research Hospital from 2019 to 2022. I am presently employed as a subspecialty expert at Batman Training and Research Hospital, Gynecologic Oncology Surgery Clinic.