Internal Medicine
The Japanese Society of Internal Medicine
doi: 10.2169/internalmedicine.3790-19
Intern Med 59: 877, 2020
http://internmed.jp

【 LETTERS TO THE EDITOR 】

Pegylated G-CSF Combined with mFOLFIRINOX for Advanced Pancreatic Cancer Patients

Key words: Peg G, m FFX, pancreatic cancer, febrile neutropenia, non-hematological adverse events

(Intern Med 59: 877, 2020)
(DOI: 10.2169/internalmedicine.3790-19)

To the Editor We read with great interest the study by Yamao et al. (1). The authors found that combination therapy with prophylactic pegylated granulocyte-colony stimulating factor (G-CSF) (Peg G) and mFOLFIRINOX (mFFX) was effective for advanced pancreatic cancer patients who had exhibited neutropenic events in previous mFFX cycles. This study is important and interesting; however, we still have some concerns about it.

With regard to non-hematological toxicities, a preliminary retrospective study (2) found that the incidence of grade 3 or 4 anorexia and nausea was higher in advanced pancreatic cancer patients treated with FOLFIRINOX and G-CSF prophylaxis than in previously reported FOLFIRINOX studies (anorexia: 33.3% vs. 11.1-14.5%; nausea: 50.0% vs. 8.3%) (2, 3). However, there was no significant difference in the incidence of grade 3 or 4 anorexia or nausea between combination therapy of Peg G with mFFX and mFFX alone in the present study. The incidence of anorexia and nausea may be influenced by differences in certain factors, such as the number of included patients and the frequency of medical examinations of inpatients. These discrepancies therefore cannot be ignored, and the authors should give some interpretation and explanation of these data in the text.

Furthermore, the toxicities associated with the administration of G-CSF were not well examined in this study. Bone pain is a well-known G-CSF-associated toxicity and a significant clinical problem that may result in the discontinuation of G-CSF prophylaxis, leading to a less effective chemotherapy regimen (4). In the present study, the data on bone pain after three administrations of G-CSF in this study were not mentioned. The authors should therefore add relevant descriptions to the discussion to alert readers to the presence or absence of bone pain.

Another issue is that we did not agree with the authors' statement that Peg G application as primary prophylaxis is not being feasible for all patients receiving mFFX due to the cost of repeated Peg G administration. No evidence has been reported concerning cost-effectiveness analyses of Peg G-mFFX and mFFX alone (5). The authors should therefore perform a cost-effectiveness analysis of these two therapy schemes in order to judge whether or not the combination therapy is indeed more cost-effective.

Finally, as a cohort study, this research can reflect the "real-world" findings and further support the conclusion, but the cohort data may be influenced by bias due to the patient selection process. Therefore, a large-scale study comparing the effectiveness should be conducted in the future.

The authors state that they have no Conflict of Interest (COI).

Acknowledgement

We thank YiPan Luan, the Department of Pharmacy of Hanchun Renmin Hospital, for providing relevant literature.

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Received: August 19, 2019; Accepted: September 29, 2019; Advance Publication by J-STAGE: November 18, 2019
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