

# Cessation or dose reduction of Capecitabine due to Complications in Patients with Colon Cancer

Seung Kook Sohn

Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Korea

See Article on Page 287-292

Capecitabine has the same effect as intravenous 5-fluorouracil/leukovorin. At the same time, it ensures good compliance of patients because it is convenient to administer and is regarded as a safe chemotherapeutic agent because the rate of complications, such as diarrhea, stomatitis, nausea and neutropenia is low. However, an important disadvantage is the higher incidence of hand-foot syndrome. Hand-foot syndrome occurs in more than half the cases of monotherapy with capecitabine in patients with colorectal cancer, and severe hand-foot syndrome of grades 3 and 4 occurs in 20% of those cases. Hand-foot syndrome occurs within the 4th cycle in more than 80-90% of the cases, and the rate of cessation of chemotherapy is high once severe hand-foot syndrome occurs. Therefore, it is important that the cessation be prevented by teaching the patients about hand-foot syndrome before the administration of capecitabine and by regulating the dose of capecitabine. The metabolites of capecitabine that are excreted from the kidney are presumed to cause hand-foot syndrome, so the incidence of hand-foot syndrome will decrease if the dose of capecitabine can be reduced based on an evaluation of renal function [1].

That this study was published under the present conditions is significant because studies on oncologic outcomes resulting from dose reduction and/or cessation of capecitabine due to complications are rare. In this study, the incidence of hand-foot syndrome was high, 65.9%, and the rate of dose reduction and/or cessation was 39.5%. In addition, it has been reported that

the cessation of capecitabine affects the recurrence rate, but dose reduction does not. This study presents a clinical guideline that chemotherapy using capecitabine should be continued even when the dose must be reduced because of complications. As indicated above, this study will become more meaningful if the dependences of the prognostic factors related to oncologic outcomes on dose reduction, dose cessation and complications can be determined by increasing the number of candidates and by lengthening follow-up period. Also, studies on the manifestation of the dihydropyrimidine dehydrogenase gene, which is supposed to be related to complications of capecitabine [2] are necessary.

## REFERENCES

1. Poole C, Gardiner J, Twelves C, Johnston P, Harper P, Cassidy J, et al. Effect of renal impairment on the pharmacokinetics and tolerability of capecitabine (Xeloda) in cancer patients. *Cancer Chemother Pharmacol* 2002;49:225-34.
2. Kouwaki M, Hamajima N, Sumi S, Nonaka M, Sasaki M, Dobashi K, et al. Identification of novel mutations in the dihydropyrimidine dehydrogenase gene in a Japanese patient with 5-fluorouracil toxicity. *Clin Cancer Res* 1998;4:2999-3004.

Correspondence to: Seung-Kook Sohn, M.D.  
Department of Surgery, Gangnam Severance Hospital, Yonsei University Health System, 146-92 Dogok-dong, Gangnam-gu, Seoul 135-720, Korea  
Tel: +82-2-2019-3372, Fax: +82-2-3462-5994  
E-mail: sksohn@yuhs.ac

© 2010 The Korean Society of Coloproctology

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.