

Analysis of the skin toxicity and care in patients with cancer chemotherapy

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In the past decade, cetuximab and panitumumab, molecular target drugs, have been widely used in the treatment of advanced colorectal cancer. The skin toxicities are seen in from 70% to 90% of patients, and these agents are also strongly associated with improve of overall survival of patients. For assessment of skin toxicities, Common Terminology Criteria for Adverse Events (CTCAE) is usually used as a method of grading severity scales for adverse events in cancer therapy. However, this assessment method is subjective and toxicities are evaluated only by medical staffs. Thus, more objective evaluation for skin toxicities is required for more precise evaluation of efficacy and safety of cancer chemotherapy by molecular target agents.

The aim of this study was to evaluate a new method for assessing the conditions and degree of skin toxicity using photographic images of skin toxic site in patients receiving cetuximab or panitumumab with advanced colorectal cancer. The assessment procedures using RGB color values obtained from photographic images are developed in combination with a color reference marker, and the method was applied to an objective evaluation for skin toxicities in patients. The time course data for the RGB color values as well as the CTCAE grading scores were obtained in a patient. Currently no clear relationship was detected between these parameters, and further researches are needed to clarify the validity of the present assessment method.