

The Method of Measuring Efficacy Evaluation for GI Cancer and Metastatic Lesions

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ABSTRACT

From the result of long-term investigation into appropriate criteria for efficacy evaluation of gastric carcinoma, Kurihara, et al. reported that a correlation was shown between the life-prolongation effect and a synthetic effect of tumor response of primary lesion and metastatic lesion. The RECIST committee has officially approved the use of Japanese criteria for efficacy evaluation of gastric carcinoma.



Since we have developed a device to measure the area of both primary and metastatic lesion, promptly and accurately, not only of gastric carcinoma but also of other gastrointestinal carcinoma, we will report on the usefulness of this device by indicating the example.

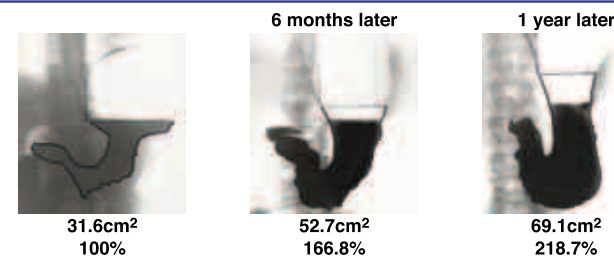
METHODS

1. Mark the area of metastatic lesion in a photography using a marker pen etc..
2. Scan the photography and measured the area with P.C.. The length is compensated with the line, which is 1cm long that is left on the picture to show the standard.
3. The picture will be segmented by using the most suitable method which is selected considering for the definition of the picture, and marked area in a picture will be reversed in order to count the number of pixels.
4. Then, the number of pixels will be used to calculate the area. The area can be correctly measured to 4 figures after decimal points.



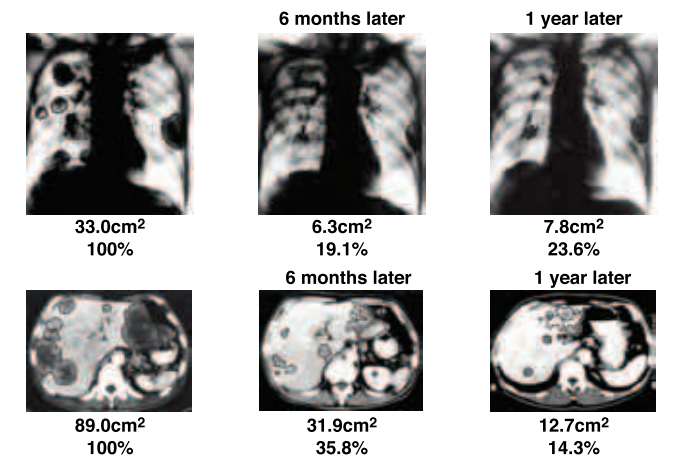
RESULTS

Case 3
(c Lesion)

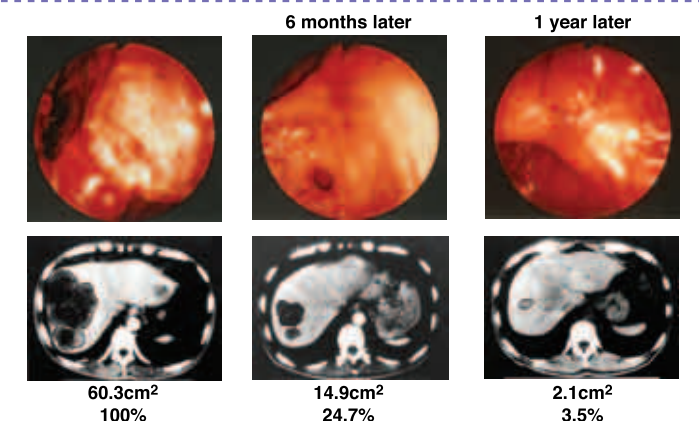


RESULTS (continued)

Case 4
Colonial
Cancer
with Lung &
Liver
Metastasis



Case 5
Gastric Cancer
with Liver
Metastasis

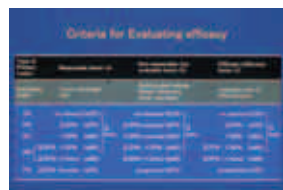


JAPANESE CRITERIA FOR EVALUATING EFFICACY

Evaluation of Primary
Foci

Case 1
(a Lesion)

Case 2
(b Lesion)



CONCLUSIONS

We have assessed the scope of the progress of lung metastasis and liver metastasis over time by using a novel method for measuring the area of metastatic lesion in X-ray photograph accurately. When compared with the conventional methods, our method can be useful in measurement for metastatic lesion more promptly and accurately.

Regarding this method of measurement, please contact us at the followings :

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