Re-appraisal of clinical usefulness of ⁶⁷Ga-citrate scintigraphy for primary colorectal carcinoma: with evaluation of scintigram obtained from resected specimens

Yukiharu Sumi, Yutaka Ozaki, Ken Amemiya, Akihiro Shirakata, Fumihiko Tamamoto and Hitoshi Katayama

Department of Radiology, Juntendo Urayasu Hospital

Clinical usefulness of ⁶⁷Ga-citrate scintigraphy for the diagnosis of colorectal carcinoma was reappraised at the standpoint of clinicopathological diagnosis. Fifty-eight patients with colonic carcinoma were subjected to this study. They underwent ⁶⁷Ga scintigraphy before surgery. Colorectal carcinomas were detected in 38 patients, 65.5% by this procedure.

Surgical specimens from thirty-seven patients underwent postoperative scanning. The scanning of the surgical specimen revealed accumulation of ⁶⁷Ga-citrate in all 37 patients, suggesting that ⁶⁷Ga-citrate accumulated in the carcinoma of the colon. The results suggested that detectability of carcinoma of the colon by ⁶⁷Ga scintigraphy in this series was better than generally considered.

⁶⁷Ga scintigraphy was considered to provide useful information in cases of severe stenosis and dolichocolon which were difficult to diagnose with a Barium enema and fiberscope. The problem is that abnormal accumulation is sometimes hard to distinguish from physiological excretion in the stools. However we believe that images should be carefully evaluated, keeping in mind the fact that ⁶⁷Ga-citrate could accumulate in a colorectal carcinoma, and also believe that we radiologists should actively promote Ba-enema examination in positive cases rather than to devote time to the differentiation between physiological excretion of ⁶⁷Ga in the stools and accumulation in a colorectal carcinoma.

Key words: colorectal carcinoma, ⁶⁷Ga-citrate scintigraphy