Characteristics of Lateral Spreading Colorectal Tumors according to Morphologic Classifications

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Background/Aims: Lateral spreading tumors (LSTs) are superficial spreading neoplasm being increasingly reported nowadays. The aim of this study was to analyze the characteristics of LSTs by morphological classification.

Patients and Methods: We reviewed retrospectively 326 cases of LST between January 2005 and July 2011. Patients’ characteristics, endoscopic findings, and histological findings were analyzed.

Results: Three hundred twenty-six lateral spreading tumors were diagnosed including 216 (33.7%) LST-granular (LST-G) type and 110 (33.7%) LST-non-granular (LST-NG) type in 287 patients. One hundred seventy-three patients (50.3%) were male and the mean age was 65±10 yrs (ranged 35 to 83 yrs). The most frequent location was rectum and sigmoid colon (37/33.6%) in LST-G type and A-colon (65/30.0%) in LST-NG type. The overall malignancy rate of LSTs was 8.6%. Size and morphological classification were significantly associated with malignancy (p<0.01, both). The malignant rate increased in proportion to size and higher for the pseudo-depressed type (24.3%) and mixed nodular type (14.1%). By multivariate analysis, only morphologic type, especially pseudo-depressed and mixed nodular type, was a risk factor of malignancy. Two hundred fifty-three lesions underwent endoscopic mucosal resection [LST-G type 76.4% (84/110)/LST-NG type 78.2% (169/216)]. Two hundred thirty-one lesions (87.8%) were resected En bloc, and 31 lesions (11.8%) were by piecemeal technique. One hundred thirty-three patients (46.3%) underwent colonoscopic follow-up mean after 8.5±6.2 months. One hundred eighteen patients (91.7%) did not show any local recurrence or remnant disease.

Conclusions: Endoscopic mucosal resection is a safe and effective treatment for LSTs. However, pseudo-depressed and mixed nodular types should be removed en bloc because of the higher malignancy potential.

Key Words: Lateral spreading tumor; Endoscopic mucosal resection; Morphological classification; Malignant rate