

Abstract

Background and Aim: Although sporadic non-ampullary duodenal adenoma is speculated to be precancerous lesion, the relationship between adenoma and carcinoma remains unclear due to their rarity. Previous studies on sporadic non-ampullary duodenal epithelial neoplasm (SNADEN) have mainly targeted superficial tumors, like adenoma and early carcinoma. The clinicopathological features, including those of advanced carcinoma, remain poorly investigated. We assessed the clinicopathological features of SNADEN, including advanced carcinoma, focusing on tumor location.

Methods: We retrospectively collected the data of 410 patients who had been clinically and pathologically diagnosed with SNADEN at 11 institutions in Japan between June 2002 and March 2014.

Results: The SNADEN was mucosal neoplasia and invasive carcinoma in 321 (78.3%) and 89 (21.7) patients, respectively. The proportion of invasive carcinomas in SNADEN was significantly higher on the oral side of the papilla of Vater (oral-Vater) than on the anal side (anal-Vater) (27.9% vs. 14.4%, $P < 0.001$). Undifferentiated-type carcinoma was significantly more frequent with oral-Vater than anal-Vater (38.7% vs. 14.8%, $P = 0.026$). The recurrence rate of surgically R0 resected locally advanced carcinomas was significantly higher with oral-Vater than anal-Vater (46.4% vs. 8.3%, $P = 0.021$). Furthermore, the relapse-free survival with oral-Vater was significantly shorter than with anal-Vater (HR: 2.35; 95% confidence interval: 1.09–5.50; $P = 0.028$).

Conclusions: The clinicopathological features of SNADEN on oral-Vater were different from those on anal-Vater. SNADEN on oral-Vater was more likely to be invasive carcinomas and might behave more aggressively due to biologically higher malignancy than that on anal-Vater.