Carcinoma of the duodenum is very rare, and most duodenal carcinomas are ade
nocarcinomas [1]. A review of the English
literature revealed only two cases of squa
mous cell carcinoma of the duodenum
[2, 3], and one case of adenosquamous
carcinoma [4]. Here, we report three cases
of pure squamous cell carcinoma of the
duodenum.

**Case 1**: A 75-year-old man was admitted
to our hospital because of vomiting and
weakness. An endoscopic examination re
vealed a circumscribed, obstructing tu
mor in the second part of the duodenum
distal to the ampulla of Vater (Fig. 1 a).
Eight biopsy samples were obtained, and
all of them showed pure squamous cell
carcinoma (Fig. 1 b). The patient was
treated with chemotherapy and radiation,
but he died of systemic metastasis 17
months after the first presentation.

**Case 2**: A 58-year-old woman presented
with abdominal pain. An endoscopic ex
amination revealed an ulcerated tumor in
the second part of the duodenum near the
ampulla of Vater (Fig. 2 a). Seven biopsy
samples were taken, and all of them
showed pure squamous cell carcinoma
(Fig. 2 b). The patient was treated with
chemotherapy and radiation, but she
died of metastasis 21 months later.

**Case 3**: A 54-year-old man presented
with abdominal pain. Endoscopy revealed
an ulcerated tumor in the second part of
the duodenum distal to the ampulla
(Fig. 3 a), and four biopsy samples
were taken. All of them revealed pure
squamous cell carcinoma (Fig. 3 b). The
patient was admitted to another spe
cialist hospital for surgery.

In all the three cases, the imaging investi
gations at the first presentation did not
reveal tumor in other locations, including
the pancreas, and the duodenal tumors
were different from ampullary tumor and
pancreatic tumor. All the three tumors
lacked differentiation into adenocarcino
ma or neuroendocrine carcinoma.

The pathogenesis of squamous cell carci
noma of the duodenum is still uncertain.
Barnhill and colleagues [5] reported an in
teresting duodenal tumor with tripartite
differentiation into adenocarcinoma,
squamous cell carcinoma, and neuroen
docrine carcinoma [5]. They speculated
that the tumor in their case had arisen
from duodenal pluripotent stem cells cap
able of differentiating into multiple cell
types [5]. The tumors in all the present
cases might also have arisen from such
pluripotent stem cells.

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Fig. 1 Case 1. a Endoscopy showing an ulcer
ated and polypoid circumferential tumor in the
duodenum. b Squamous cell carcinoma with
keratinization (hematoxylin and eosin; magnifi
cation × 200).

Fig. 2 Case 2. a Endoscopy showing an ulcer
ated tumor in the duodenum. b Squamous cell
 carcinoma with keratinization (hematoxylin
and eosin; magnification × 200).

Fig. 3 Case 3. a Endoscopy showing an ulcer
ated tumor in the duodenum. b Squamous cell
carcinoma with keratinization and intercellular
bridges (hematoxylin and eosin; magnifica
tion × 200).

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References

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