VIDEO CASE REPORT

Confocal laser endomicroscopic finding of lymphoma of the duodenal papilla

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The endoscopic findings of lymphoma are variable, making its diagnosis very difficult. Confocal laser endomicroscopy (CLE) is an emerging technique used to obtain real-time in vivo histologic images from various types of mucosa. We have previously reported on the effectiveness of CLE in diagnosing lymphoma.[1-3] Here, we report our experience with CLE imaging of lymphoma of the duodenal papilla with the corresponding histopathologic

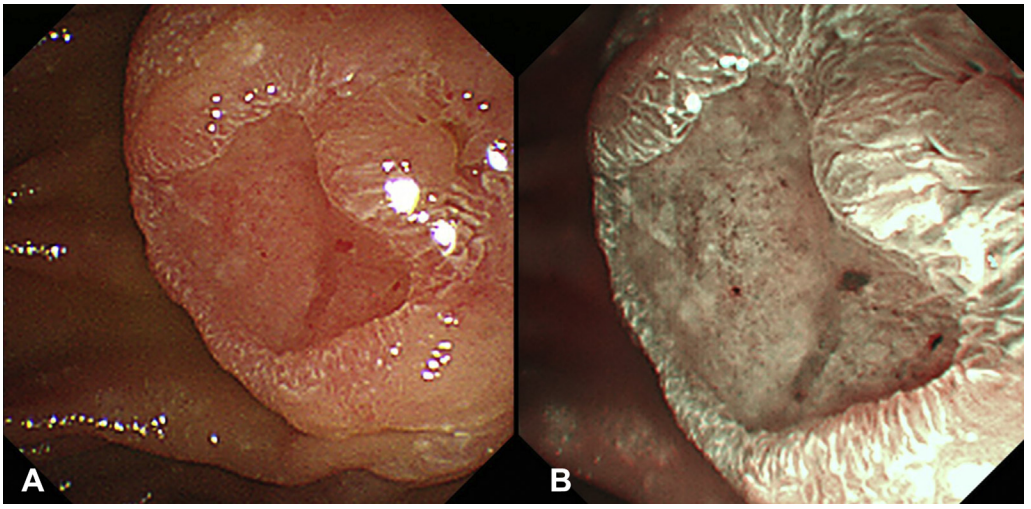

Figure 1. A, Endoscopic view showing depressed lesion of the papilla. **B,** Narrow-band imaging showing a lack of glandular structure.

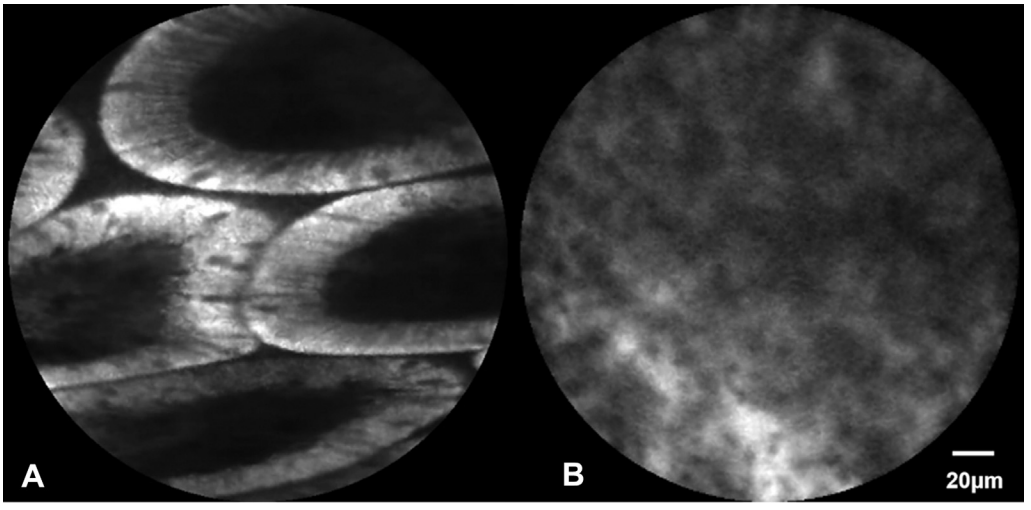

Figure 2. A, Probe-based confocal laser endomicroscopic (pCLE) images of normal mucosa showing villiform architecture with uniformly bright, tall columnar epithelium and dark goblet cells. **B,** In the lesion, pCLE image showing absence of glandular structures and numerous small cells.

Written transcript of the video audio is available online at www.VideoGIE.org.

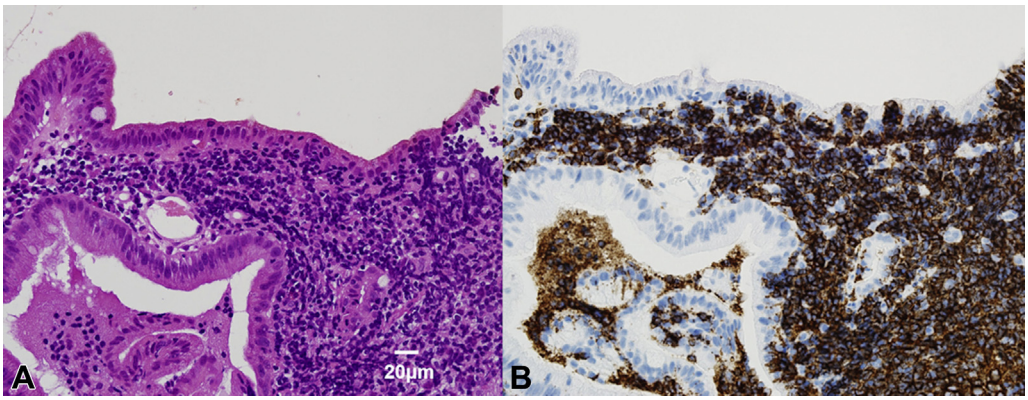

Figure 3. A, Histologic view of biopsy specimen showing dense proliferation of small-to-medium lymphocytes with irregular nuclear contours (H&E, orig. mag. ×400). **B,** Immunohistochemical analysis showing positivity for CD20 (orig. mag. ×400).

images. Lymphoma of the duodenal papilla is rare, and to our knowledge, this is the first report of this condition.

Our patient was an 83-year-old man with the endoscopic finding of a depressed lesion of the papilla. A lack of glandular structure was observed in narrow-band imaging (Figs. 1A and B). Subsequently, fluorescein-dripping CLE[4] was performed by the use of probe-based CLE (pCLE) (GastroFlex, Cellvizio; Mauna Kea Technologies, Paris, France).

First, pCLE images of normal mucosa near the lesion were obtained to serve as a control; these showed villiform architecture with uniformly bright, tall columnar epithelium and dark goblet cells (Fig. 2A). Then, pCLE was used to observe the lesion and showed absence of glandular structures and numerous small cells (Fig. 2B; Video 1, available online at www.VideoGIE.org). Histopathologic examination of the biopsy specimen from the lesion site revealed a dense proliferation of small to medium lymphocytes with irregular nuclear contours (Fig. 3A). Immunostaining revealed an increase of CD20+, Cd79a+, CD10+, BCL2+, CD3−, CD5−, BCL6−, and MUM1 cells. Thus, the patient received a diagnosis of follicular lymphoma (Fig. 3B). The sizes of the tumor cells, as assessed by pCLE and histologic examination, were roughly the same.

Stage I follicular lymphoma was diagnosed on the basis of the results of positron emission tomography and CT. With sufficient informed consent from the patient, a treatment strategy of "watchful waiting" was adopted.

The pCLE image seemed to reflect the histologic findings. In summary, the findings observed in this case are similar to those described in our previous reports[1-3] wherein pCLE was also used to identify lymphoma, suggesting that this pCLE finding is common to lymphoma.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Abbreviations: CLE, confocal laser endomicroscopy; pCLE, probe-based confocal laser endomicroscopy.

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https://doi.org/10.1016/j.vgie.2018.06.002