Colonic metaplasia of the neo-terminal ileum in Crohn's Disease

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Image of the Month

Colonic metaplasia of the neo-terminal ileum in Crohn's Disease

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Mucosa of the neo-terminal ileum after ileo-colonic resection for Crohn's Disease (CD), showing sulfomucin-type metaplasia. The High-Iron-Diamine (HID) histochemical reaction documents the neo-expression of sulfomucins in ileal columnar/goblet enterocytes (Fig. 1).

In a previous study [1] we already documented in CD ileum the metaplastic transformation of the native ileal mucosa into colonic type sulfomucin-rich mucosa (i.e. colonic metaplasia).

Submucosal and myenteric plexitis in proximal margins of ileocolonic resection specimens have been associated with CD recurrence [2,3]. Differently, the clinico-pathological usefulness of colonic metaplasia as early predictor of clinical and endoscopic CD recurrence is undefined.

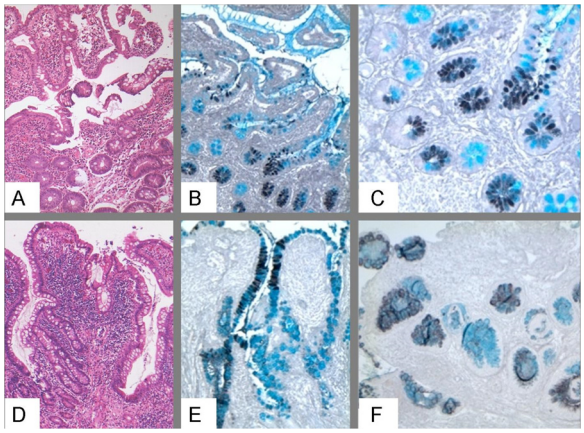

Fig. 1.

Panels A–C

Ileal mucosa (biopsy sample obtained 6 months after ileo-colonic resection): *Panel A*. In the routinary hematoxylin-eosin stain, the original structure of the ileal villi is well recognizable and only mild distortion of the crypts and lymphocitic flogosis is observable. Hematoxylin-eosin, original magnification 10×. *Panel B*. The original structure of the ileal villi is well recognizable (sialomucin secreting goblet cells bordering the villous structure [light blue]). Some of the crypts are bordered by intense-brown stained epithelia (containing sulfomucins: i.e. sulfomucin-secreting metaplasia). High Iron Diamine; original magnification 10×. *Panel C*. At a higher magnification, the sulfomucin secreting goblet cells (intense-brown) bordering the crypts structure (light blue) are more assessable. High Iron Diamine; original magnification 25×.

Panels D–F

Ileal mucosa (biopsy sample obtained 12 months after ileo-colonic resection): *Panel D*. In the routinary hematoxylin-eosin stain, the original structure of the ileal villi is almost lost and a more intense flogosis (but no granulocytes) and crypt distortion are observed. Hematoxylin-eosin, original magnification 10×. *Panel E*. The sulfomucin-secreting cells (intense brown) appear along the remaining villous structure, beyond crypts (sulfomucin-secreting metaplasia involving the whole villous structure). High Iron Diamine; original magnification 25×. *Panel F*. At a higher magnification, the sulfomucin secreting crypts (intense-brown) predominate on sialomucin-secreting (light blue) goblet cells (sulfomucin-secreting metaplasia involving the whole epithelium). High Iron Diamine; original magnification 40×.

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