

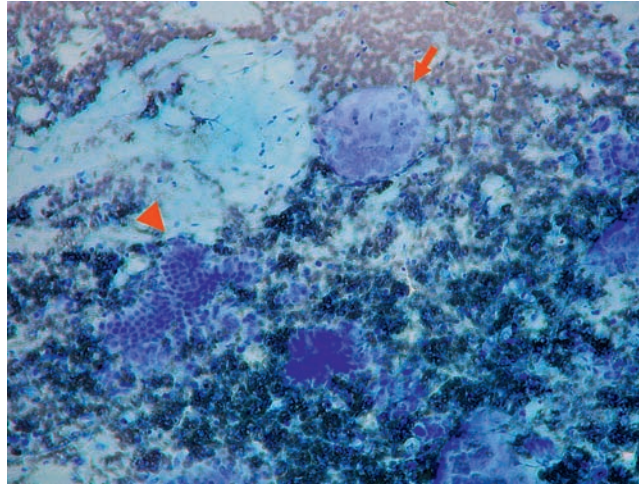
## Puncture and cytology – sufficient for endoscopic diagnosis of pneumatosis cystoides intestinalis?



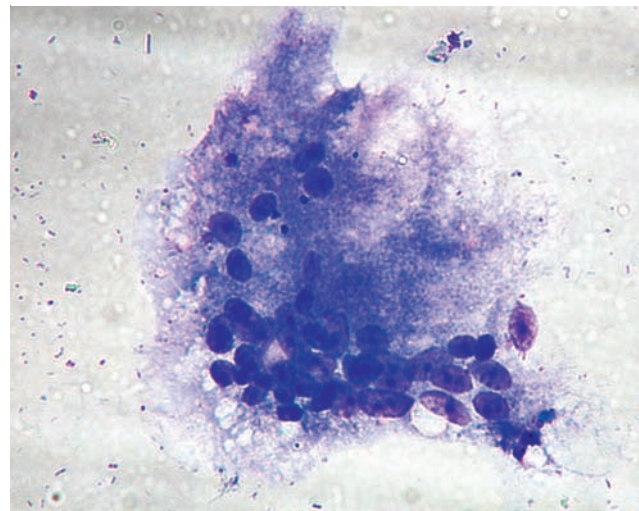
**Fig. 1** Colonoscopy, case 1: there are several sessile, ball-shaped polyps covered with normal mucosa with an adequate vascular pattern.



**Fig. 2** Colonoscopy, case 2: small, sessile ball-shaped polyps covered with swollen, red-dish mucosa.



**Fig. 3** Cytology, case 1. Multinucleated giant cell (arrow) and cluster of cylindrical colonic mucosal epithelial cells (arrowhead) with erythrocytes and mucus in the background (May-Grünwald-Giemsa staining, magnification  $\times 100$ ).



**Fig. 4** Cytology, case 2. Multinucleated giant cell (May-Grünwald-Giemsa staining, magnification  $\times 500$ ).

Pneumatosis cystoides intestinalis (PCI), that is, presence of gas within the colonic wall, often has a polypoid appearance and can thus cause diagnostic uncertainty for the endoscopist [1–3].

**Case 1.** A 51-year-old man underwent colonoscopy for diarrhoea and slight hematochesia. Colonoscopy revealed small, sessile, ball-shaped polyps, which were clustered in streaks and covered with normal mucosa in the hepatic flexure region (• **Fig. 1**). The polyps disappeared on puncturing and suction with a needle (• **Video 1**). The patient was symptom-free at that time and no pathology was found on an abdominal plain X-ray film. (This case has been reported previously [4].)

### Video 1

Colonoscopy, case 1. Small, sessile, ball-shaped polyps in the hepatic flexure region, quite firm on forceps palpation. The biopsy just unroofed the normal mucosa, and the polyps disappeared on puncture and suction with a needle.

**Case 2.** A 60-year-old obese man with a history of *Clostridium difficile* colitis was referred for lower endoscopy for a suspected perianal fistula. The patient was otherwise asymptomatic. Several small, sessile polyps were seen clustering in the splenic flexure region. Some of them were covered with swollen and reddish but otherwise normal mucosa (• **Fig. 2**). An

abdominal plain X-ray was normal; stool samples were negative for both standard culture and for *C. difficile* toxins A and B. The aspirated material was sent for cytological examination. Numerous foreign body multinucleated giant cells on a background of normal mucosal epithelial cells were found in both cases (• **Fig. 3** and **4**). To our knowledge these are the first two cases of diagnosis of PCI by fine needle aspiration cytology. We conclude that a diagnosis of PCI suspected on endoscopy can be effectively confirmed by puncturing the pseudocysts and cytological examination of the aspirated material. Collapse of the pseudocysts on puncture and the presence of giant multinucleated cells in the cytologi-

cal smears are supposed to be pathognomonic for this condition. The diagnosis can thus be easily confirmed and unnecessary treatment avoided.

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