A 53-year-old woman presented with a 6-month history of chronic constipation and abdominal bloating. Because of concern about a colorectal lesion, colonoscopy was done and hundreds of small polyps were found throughout the colon, most being less than 4 mm in diameter. Some of the bigger polyps were removed by polypectomy and were found at pathologic examination to be tubular adenoma. As the patient was unwilling to undergo a rectum-preserving total colectomy, argon plasma coagulation (APC) was selected to ablate the remaining polyps as far as possible (Fig. 1).

APC was done using an Olympus system (PSD-60; Olympus, Tokyo, Japan) at settings of argon flow rate 1 l/minute, power 40 W, effect 1.

The patient tolerated the 1-hour procedure well until the end, when severe abdominal distension without rebound tenderness was noted. Because of the persistent abdominal discomfort, a standing chest radiograph was obtained which showed massive free air in the peritoneum (Fig. 2).

Laparotomy was done immediately. The entire colon was checked carefully and a tiny perforation was found at the transverse colon (Fig. 3, arrow).

After surgical closure of the perforation, the patient recovered uneventfully and was discharged 2 weeks later.

APC is safe and effective for the management of gastrointestinal tract bleeding, polyp remnants, and watermelon stomach, ablation of precancerous lesions, and so on [1–3]. An asymptomatic air accumulation in the peritoneum may develop after APC because the high argon flow induces submucosal emphysema with a leakage of gas through the gastrointestinal tract wall. Conservative treatment is suggested for this situation [4]. As our patient underwent APC ablation of numerous colonic polyps, the air insufflation was prolonged, leading to severe pneumoperitoneum even though there was only a tiny perforation. Thus, it is very important to distinguish between the symptomatic ‘perforation’ and the asymptomatic ‘air accumulation’ as causes of pneumoperitoneum.
C.-H. Chuang¹, T.-C. Chou², C.-Y. Chen¹

¹ Department of Internal Medicine, Medical College and Hospital, National Cheng Kung University, Tainan, Taiwan
² Department of Surgery, Medical College and Hospital, National Cheng Kung University, Tainan, Taiwan

References


Bibliography

Endoscopy 2009; 41: E251 – E252
© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

Corresponding author
C.-Y. Chen, MD
Department of Internal Medicine
National Cheng Kung University Hospital
138 Sheng-Li Road, Tainan
Taiwan
Fax: +886-6-2766116
chiungyu@mail.ncku.edu.tw

Chuang C-H et al. Minute perforation after APC for small colonic polyps... Endoscopy 2009; 41: E251 – E252