

EUS could detect ascites missed by CT scan

I read with great interest the article by Lee and colleagues (*Gut* 2005;54:1541–5) regarding the accuracy of endoscopic ultrasonography (EUS) in diagnosing ascites and predicting peritoneal metastases in patients with gastric cancer. I would like to thank the authors for quoting our study.¹ Lee and colleagues commented that the sensitivity of detection of ascites was lower in our study and that this might be due to the use of catheter probe. I would however like to point out that such a comparison was unfair as the two studies were fundamentally different in two ways.

(1) The patient populations of the two studies were different. Our study excluded all patients with evidence of ascites on physical examination or computed tomography (CT) scan. We believe that there is no need for an additional EUS to confirm the presence of ascites in such patients. Moreover, such patients should have paracentesis for cytological examination rather than a locoregional staging investigation like EUS.

During the study period of our paper (September 1995 to January 2002), 89 patients had evidence of ascites on CT scan or physical examination. There would be no difficulty in detecting ascites in these patients by EUS. If we included these patients, the detection rate by EUS would have been 25.5% ($36+89/402+89 = 125/491$). The overall incidence of ascites was 29.5% ($56+89/402+89 = 145/491$). The “adjusted” sensitivity would be 84.8% ($34+89/56+89 = 123/145$), not much lower than the 87.1% reported by Lee *et al.*

(2) CT scan was performed for all patients in our study. Of the 89 patients who were excluded from the study, 69 had evidence of ascites on CT scan. The sensitivity of CT scan for detection of ascites was 47.6% (69/145), higher than the 16.1% sensitivity (combined US and CT scan) reported by Lee *et al.* We suspect the lower sensitivity may be due to the predominant use of US scan (231 patients) rather than CT scan (99 patients) in their study. A direct comparison however is not possible as the study populations of the two studies may be different.

In summary, I would like to applaud Lee *et al.* for their systematic study. The comment that the sensitivity of detection of ascites was lower in our study was unfair.

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Conflict of interest: None declared.

Reference

- 1 Chu KM, Kwok KF, Law S, *et al.* A prospective evaluation of catheter probe EUS for the detection of ascites in patients with gastric carcinoma. *Gastrointestinal Endoscopy* 2004;59:471–4.

Author's reply

We would like to thank Dr Chu for his interest in our paper and for supplementing some of the data missing in his previous publication.¹ We agree that both studies had fundamental difference in study design and

we would like to point out the major difference for discussion.

One of the major differences lies in the definition of presence of ascites. Chu *et al.* used positive laparoscopic detection of ascites as the gold standard when comparing with their endoscopic ultrasonography (EUS) findings. However, in our study, we combined all investigation results (ultrasound (US), computed tomography (CT), EUS, and operation) to determine the status of ascites. We believe that a small amount of fluid, such as several millilitres as detected by EUS, might not be visibly appreciated during operation.

Another major difference is the type of EUS used in the two studies. We used an echoendoscope (7.5–12 MHz) with a higher penetration depth, which allowed scanning through thick tumours. In contrast, Chu *et al.* used a miniprobe (20 MHz) in their study, which actually had a limited depth of penetration. This may explain why the overall incidence of ascites was higher in our study (37.2%) compared with Chu's series (29.5%, the supplemented data combining CT, physical examination, and operative finding). In our study, EUS was more sensitive (87.1%) than the operative findings (40.9%) in detecting ascites. Therefore, we do not agree with Chu's conclusion that “laparoscopy and laparotomy remain the reference standard for the detection of ascites” as “ascites was missed by EUS in nearly 40% of patients”.¹ We suspect if an echoendoscope was used in Chu's study, the sensitivity of EUS would have increased and CT decreased, and the projected results would then have come close to ours.

In fact, CT scan is not our routine in the preoperative assessment of patients with gastric cancer, especially in those early gastric cancers, or if EUS showed no local invasion. There is no evidence in the literature showing that CT scan is better than US in the detection of ascites. CT scan could not be used as the gold standard as, according to Chu's data, CT scan missed 20 patients with ascites which was indeed detectable on physical examination.

We are however agreed on the same conclusion that “EUS is useful for the detection of ascites in patients with gastric carcinoma” and “The presence of ascites was significantly associated with peritoneal seeding”.¹

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Reference

- 1 Chu KM, Kwok KF, Law S, *et al.* A prospective evaluation of catheter probe EUS for the detection of ascites in patients with gastric carcinoma. *Gastrointestinal Endosc* 2004;59:471–4.

Anti-TNF- α therapy for orofacial granulomatosis: proceed with caution

A 36 year old female patient was reviewed at the gastrointestinal clinic. She had, since the age of 15 years, been affected by troublesome

orofacial granulomatosis (OFG) manifest as lower lip swelling together with a midline fissure. In the past she had received numerous therapies, including intralesional and systemic corticosteroid (short term benefit only), cinnamon and a benzoate free diet (lack of compliance), azathioprine (intolerance), and topical tacrolimus (ineffective).

In 2001, due to increasing distress about her appearance compounded by her forthcoming wedding, we decided to treat her with an infliximab infusion at 5 mg/kg. Within seven days there was a noticeable improvement, followed by complete healing of her labial fissure six weeks later, just prior to her wedding. Two weeks after this she found out she was pregnant. She subsequently gave birth to a healthy baby boy but failed to attend the clinic and was lost to follow up for four years.

On re-referral to the clinic in 2005, she was in the midst of a course of oral prednisolone (prescribed by her general practitioner) as her OFG had once again become problematic. In view of her excellent previous response to anti-tumour necrosis factor α (TNF- α) therapy coupled with the significant risks of an infusion reaction if rechallenged with infliximab (long drug “holiday” with no concomitant immunosuppression), we elected to treat her with subcutaneous adalimumab, 80 mg initially and then 40 mg fortnightly. After five weeks of treatment there was both a subjective and objective improvement, with partial healing of the midline fissure (figs 1, 2). At eight weeks the patient noted some left sided facial pain and swelling just below the corner of her mouth. She attended her dentist who excluded any periodontal sepsis. Three days later she was admitted to our unit with fever sweats and worsening facial pain and swelling (fig 3). Clinically she had a perioral cellulitis with bilateral perioral swelling and erythema, together with pyrexia and raised inflammatory indices. She received



Figure 1 Pre-adalimumab treatment; swollen lower lip with deep midline fissure.



Figure 2 At five weeks, after three adalimumab injections; marked improvement in midline fissure.