

## At the coalface

# Is the endoscopic view too narrow?

Timothy J Neal and Neville Krasner *Walton Hospital, Liverpool*

### Authors' abstract

*Palliative laser therapy for gastrointestinal tumors is now well established. Its use however may be associated with complications not directly attributable to the laser therapy. These complications potentially decrease the quality of life which opposes the aim of treatment.*

### Introduction

The prognosis associated with oesophageal carcinoma is poor with a five-year survival of only four to six per cent (1). In cancer of the colon about 21 per cent survive five years and similar figures are encountered in rectal carcinoma with a survival rate of 22 per cent (2). The majority of cases at presentation are unsuitable for curative surgery. The principal aim of treatment then is palliation of symptoms to improve the quality of remaining life. Laser therapy has established itself as an effective form of palliation for carcinoma of the oesophagus (3,4), and unresectable rectal tumors (5). Complications directly attributable to laser treatment are well known and include perforation, tracheo-oesophageal fistula, bacteraemia, bleeding, local pain and transient pyrexia. In the author's personal series of 500 cases of malignancy of the oesophagus and gastric cardia, perforation occurred in six per cent and fistulisation one per cent. Perforation was encountered in only one of 160 patients with colorectal carcinoma and recto-vaginal fistula in two others.

We present four cases in whom complications have arisen not directly as a result of laser therapy but due to the progressive natural history of the underlying disease and longer survival following laser treatment. These complications have significantly added to the morbidity in each of the cases, thereby adversely affecting the quality of life which is the one factor palliation seeks to preserve or enhance.

### Case 1

A 63-year-old gentleman was referred for laser treatment to an oesophageal carcinoma. The diagnosis had been made eight months prior to referral and an

Atkinson tube inserted and, in spite of this, dysphagia had recurred. On admission he was able to swallow liquids only. At endoscopy it was impossible to pass the endoscope into the stomach. The tumor was treated with laser. His dysphagia progressed initially and he required a short period on total parenteral nutrition. Three laser sessions later he was tolerating a soft diet without difficulty. This improvement was maintained and two months after referral he was able to eat solid food. Seven months and 10 laser sessions later he was still tolerating solids and maintaining his weight. At this time he complained of severe pain in the left shoulder, right wrist and left hip; a bone-scan confirmed the presence of bony metastases. Following this, although his dysphagia recurred and he was reduced to a 'sloppy' diet his main complaint on each admission was of pain, particularly in the lumbar, left shoulder and retrosternal regions. He required increasing doses of opioid analgesia to control the pain. He died one year after referral.

### Case 2

A 68-year-old gentleman was referred for palliative laser therapy for a large polypoid tumour at the recto-sigmoid junction, which was inoperable due to the presence of hepatic metastases. On admission he complained of watery diarrhoea five to six times daily, associated with the passage of flesh blood. This rectal bleeding settled following the first treatment and did not recur. After four laser sessions he was passing two to three normal bowel motions per day and this improvement was maintained. Fifteen months after initial presentation his bowel symptoms were still well controlled, however he presented to the accident and emergency department complaining of sudden weakness in his right arm. Clinical examination revealed decreased tone, power and sensation affecting all muscle groups and dermatomes of the right arm with decreased reflexes and winging of the scapular. There was no other focal neurological defect. Chest radiograph demonstrated right upper-zone shadowing, thought to be neoplastic in origin. The right-lower motor neurone signs were assumed to be due to invasion of the right brachial plexus. There was no improvement and he died one month later, severely incapacitated by his disability.

### Key words

Palliation; laser; quality of life.

### Case 3

An 81-year-old lady was referred for laser therapy to a poorly differentiated adenocarcinoma of the oesophagus. On admission she was unable to swallow fluids. After her first laser treatment she was tolerating oral fluids and after two sessions was taking a liquidised diet. This improvement was successfully maintained although her dysphagia did worsen just prior to each laser session. Two months after presentation the presence of metastatic sub-mandibular lymph-adenopathy was detected. One month later she was admitted following a minor haematemesis and two subcutaneous skin nodules were noted, one in the right scapular region and one above the left breast. These nodules were firm, mobile and painless. They increased in size and number, ranging in diameter from one to five centimetres. At this stage her dysphagia was worsening. She was referred for radiotherapy to her skin secondaries, six months after her first referral and died shortly afterwards from generalised malignant disease.

### Case 4

A 64-year-old gentleman was referred for laser treatment for an oesophageal carcinoma. On admission he was swallowing a liquid diet. Initial endoscopy showed complete oesophageal occlusion. Three laser sessions at weekly intervals provided sufficient lumen to allow the patient to swallow soft solids without difficulty. This improvement was maintained with laser treatment at four-weekly intervals for seven months. At this time he presented with colicky suprapubic abdominal pain. He had clinical and radiographic evidence of small bowel obstruction. He failed to settle with conservative management and required a laparotomy and surgical decompression. At operation a knotted loop of small bowel was found ensuing from a few mesenteric deposits in the terminal ileum. On his following admission he again complained of lower abdominal pain and a hard mass was detected in the right groin. This again required

surgical intervention and a hard mass attached to the spermatic cord and pubic tubercle was removed. Histology revealed this to be further metastatic carcinoma. His general condition deteriorated and he died fifteen months after first referral for laser palliation.

### Discussion

Palliation is the provision of temporary relief from the symptoms of disease. The most obvious and distressing symptom associated with oesophageal carcinoma is dysphagia. Endoscopic laser therapy has been shown to be effective in providing relief from this main symptom (3,4) and either alone or in combination with other forms of palliative treatment, for example radiotherapy or prosthetic tube insertion, dysphagia can be improved by one or two grades, sufficiently to allow patients to maintain and improve their nutritional status. This is confirmed in the cases cited above whose main initial symptom was dysphagia and who received very adequate relief to the extent that often this ceased to be their main complaint (Table 1). In patients with colorectal malignancy, relief of obstruction and from foul and often bloody rectal discharge are major gains, while success in the relief of rectal pain and diarrhoea is more variable (6).

The palliative treatment of oesophageal carcinoma however, is not solely the treatment for dysphagia or the relief of rectal obstruction or impending intestinal obstruction in large-bowel cases, it is the treatment of a patient in whom the prime objective is to relieve all suffering. This, therefore, requires not only a skilled endoscopist but also a clinician who can step back from the endoscope to view the patient in a more holistic mode. This view takes in not only the patient but also family and social circumstances. The clinician then is able to co-ordinate care of the patient to minimise suffering, which often involves liaison with clinical colleagues such as surgeons and clinical oncologists and also district and specialist nurses, social workers and dietitians.

**Table 1: Patient summary**

	<b>Diagnosis</b>	<b>Main symptom at referral</b>	<b>Complications</b>	<b>Main symptom prior to death</b>
<b>Case 1</b>	Oesophageal carcinoma	Dysphagia	Skeletal metastases	Bone pain
<b>Case 2</b>	Rectal carcinoma	Rectal bleeding	Lung metastases	Monoparesis
<b>Case 3</b>	Oesophageal carcinoma	Dysphagia	Skin metastases	Dysphagia
<b>Case 4</b>	Oesophageal carcinoma	Dysphagia	Small bowel metastases	Obstruction Abdominal pain

Palliation, despite not having any curative effect on the disease itself, can prolong life (7). In the case of oesophageal carcinoma this is presumably through providing better nutrition and decreasing the risk of aspiration, while in the colon and rectum, intestinal obstruction is the main risk to life. It is obvious that the longer a patient survives the greater the chance of complications arising, either directly associated with the palliative method or related to the underlying disease. The complications associated with endoscopic laser therapy (as listed above) are well recorded in the literature. The most common complication seen with this type of treatment is oesophageal perforation which can be expected to occur in some six per cent of patients (4), although less common in the management of colorectal disease. Often such a complication is suspected at the time of endoscopy and immediate measures can be taken to provide appropriate treatment, however perforation may be less obvious in rectal cases which occur beneath the peritoneal reflection. Other expected complications may be elicited by direct questioning and clinical examination.

The problems presented by our cases are not those which could be predicted as a result of therapy. Indeed, as described above, all cases benefited in terms of the relief of the main symptom. Possibly this success and prolongation of life allowed the disseminated elements of their disease to present and, with other symptoms becoming more prominent, induced a change in perspective for the patient.

Any complication will decrease a patient's quality of life. This, of course, depends on the patient. In case 3 the patient found her skin lesions troublesome and cosmetically embarrassing. Case 2 demonstrates a rather bizarre complication through which the patient ended his life without the use of his right arm, which increased both his and his family's distress. In case 4,

two operations were required to provide palliation. Case 1 demonstrates the problem of increasing pain as a result of metastatic disease. Are we justified in pursuing our palliative measures when to do so may inadvertently increase the patient's suffering rather than relieve it?

Our cases demonstrate that there is considerably more involved in the care of these patients than the relief of the original presenting symptom. The clinician must develop his own perspective to ensure the consequence of any treatment given does not outweigh the value of the actual treatment programme.

*Timothy J Neal, MB, is Senior House Officer and Neville Krasner, MD, FRCP, is Consultant Gastroenterologist in the Gastroenterology Unit, Walton Hospital, Liverpool.*

## References

- (1) American Cancer Society. *Cancer statistics*. 1986; 36: 9–25.
- (2) Slaney G. Results of treatment of carcinoma of the colon and rectum. In: Irvine W J, ed. *Modern trends in surgery, vol 3*. Butterworth: London, 1971: 69.
- (3) Krasner N, Barr H, Skidmore C, Morris A I. Palliative laser therapy for malignant dysphagia. *GUT* 1987; 28: 792–798.
- (4) Bown S G, Hawes R, Matthewson K *et al*. Endoscopic laser palliation for advanced malignant dysphagia. *GUT* 1987; 28: 799–807.
- (5) Morris A I, Krasner N. Laser irradiation of inoperable tumours of the colon and rectum. *British medical journal* 1985; 290: 1948.
- (6) McGowan I, Barr H, Krasner N. Palliative laser therapy for inoperable rectal laser – does it work? *Cancer* 1989; 63: 967–969.
- (7) Karlin D A, Fisher R S, Krevsky B. Prolonged survival and effective palliation in patients with squamous cell carcinoma of the oesophagus following endoscopic laser therapy. *Cancer* 1987; 59, II: 1969–1972.