Cure or care in everyday practice

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Abstract

Two cases of carcinoma of the stomach presenting during the same month and dying within four weeks of one another less than one year later are presented. One was treated symptomatically and the other received radical surgery. The care they received depended on decisions about diagnosis and treatment; the outcomes of these and the difficulties involved in evaluating monetary costs and quality of care are discussed in the light of recent interest in medical audit.

Introduction

Quality, cost of care and decision making are fashionable topics in medical journals. Much that is written applies to populations rather than individuals.¹ But doctors as arbiters of technical quality, controllers of resources, and professional decision makers are being increasingly pressed to consider such issues in their own practice. A recent meeting, for instance, of the Association of Canadian Medical Colleges discussed among other things 'Training the Cost Conscious Physician'.²

The impetus for much of this arises from a widely felt need to moderate rising health costs. The resulting ethical dilemma lies in the conflict between the individual's right to health care and society's need to limit and share finite resources.³ In its most dramatic form this issue, as seen in terms of costs and outcomes of intensive care,⁴ is largely based on the assumption that prolongation of life in the hope of cure, however small, is fundamental to a physician's practice.⁵ It is unfortunate that, in the pursuit of the inexorable logic of this assumption, care is often neglected and that monetary costs and unquantifiable costs in terms of patient dignity and autonomy are accumulated.

These issues were highlighted by two patients with carcinoma of the stomach who presented during the same month. One was treated symptomatically, the other received radical surgery. One year later both died at home within four weeks of one another. A review of the care they received demonstrates some of the difficulties of objective assessment of quality of care.

PATIENT A

A 73-year-old man presented to his general practitioner on 9 September 1975 with a six week

history of upper abdominal pain, loss of appetite and vague weight loss. Weight was 68.2 kg, he was not anaemic and erythrocyte sedimentation rate was within normal limits. Two weeks later he was symptomatically improved but had lost 0.5 kg. He was asked to return and in the following month lost a further 2.2 kg and had lost his appetite again. Gastric radiology demonstrated an abnormality in the fundus of the stomach and a double contrast study outlined a definite mass. At endoscopy an adenocarcinoma was partially occluding the lower end of the oesophagus.

The houseman and general practitioner discussed the problem. The patient was told he had cancer and there was a small possibility of cure with a large operation. He declined surgery despite a detailed explanation that he might eventually be unable to swallow but he was assured that adequate analgesia and symptomatic treatment would be provided. He reaffirmed his decision one week later when he was given flurazepam at night for insomnia.

During an unsolicited house call on 9 January the patient described occasional pain but he was cheerful and sleeping well. Both he and his wife had discussed the situation and appeared to accept it. Gevracon^(R) was prescribed as a tonic.

By 20 April his epigastric discomfort had increased but it responded to acetaminophen and codeine. He could eat soup and puddings only. There was a firm mass in the abdomen but no additional action was taken.

On 27 May, he requested a house call. He had deteriorated considerably and taken to bed. For the first time he was depressed. Brompton mixture (Morphine 5 mg and Cocaine 5 mg elixir) 6-hourly was prescribed and a few days later he was cheerful and sitting outside his house in the sun. From then on he was seen weekly at home, obviously deteriorating but not in distress. In June a deep vein thrombosis developed in the left calf and was treated with an elastic support bandage. The concentration of morphine and cocaine elixir was doubled in July.

By 3 August he was back in bed, no longer eating, his chest congested and a sacral pressure sore had developed. He was confused at night but remained comfortable. The upper abdominal mass was larger and there were widespread rhonchi in the chest. The public health nurse was asked to dress the sore, morphine and cocaine elixir was given 4-hourly and the general practitioner called daily.

An aspiration incident occurred on the night of 9 August and the last rites were administered. His level of consciousness fluctuated over the next two days and when he was no longer able to swallow, morphine 15 mg was given intramuscularly every 6 hours. He died on 13 August 10 minutes after an injection.

PATIENT B

This 61-year-old man consulted his general practitioner in 1973 and 1974 for mild epigastric discomfort. On each occasion he declined investigation. He presented again on 15 September 1975 having passed a loose tarry stool (indicating bleeding from the gut) and admitted that his symptoms had been increasing for 6 months and that he had lost weight. A barium enema, barium meal and oral cholecystogram (gall bladder x-ray) were arranged and a gastric ulcer was demonstrated on the greater curve of the stomach. Endoscopy with biopsy confirmed an ulcerated adenocarcinoma at this site.

Following discussion between houseman and general practitioner he was advised that a small cancer had been found that could be removed surgically. When the abdomen was opened at operation on 20 October the tumour was invading the fatty omentum, and lymph nodes along the greater and lesser curves of the stomach, at the oesophago-gastric junction and at the root of the spleen were involved. An 80 per cent subtotal gastrectomy, omentectomy and splenectomy were performed and histologically all lymph nodes were invaded by tumour. The patient was assured that his cancer had been removed. His rapid recovery was complicated by dumping* which responded to medical management.

He saw his general practitioner at monthly intervals and attended outpatients in December and February. He appeared to be doing well though he remained 3 kg below his pre-operative weight. In the clinic on 9 July he complained of loss of appetite and bloating after meals for two months and he had clearly lost weight. Both he and his family were anxious but were strongly reassured that recurrence had not occurred. Antacids, multi-vitamins and parenteral vitamin B₁₂ were prescribed.

Two weeks later he described severe regurgitation, heartburn and coughing whenever he ate. His family thought he was too weak for outpatient investigation and he was admitted. Endoscopy showed a rigid stomach due to recurrence of tumour.

Because of his severe symptoms and distress it was decided to offer palliative radiotherapy and chemotherapy. Further gastric radiology and liver scanning were employed to determine the extent of

recurrence. He was unable to leave his bed because he was so wasted and an attempt was made to improve his nutrition prior to therapy. However he removed a naso-gastric feeding tube himself because of extreme discomfort, and intravenous hyperalimentation by a peripheral route met with numerous technical problems. Ward staff noted he was depressed and thought he should make more effort to eat.

By mid-August it was thought he had improved a little and treatment was begun with radiotherapy totalling 3500 rads and chemotherapy of 300–500 mg 5-fluorouracil over 10 days. However, the next day he was unexpectedly found to be severely anaemic (haemoglobin 4.7 g per 100 ml) and five units of packed red blood cells were transfused. Demerol (a type of pethidine) 50 mg im was prescribed (6-hourly prn and at night) as analgesic (but he received only 4 doses over 6 days). Radiotherapy continued and an intravenous catheter to the subclavian vein was inserted which survived only 24 hours. He had a fever on 22 August with extensive thrombophlebitis of one arm and a right middle lobe infiltrate on chest x-ray. The antibiotic Cloxacillin was given through the remaining peripheral vein in the right leg, and changed to penicillin and ampicillin when blood cultures grew α -haemolytic streptococci. He was miserable and on 7 August began to vomit blood.

It was decided to discontinue active treatment and he was discharged home. His general practitioner noted that he was terminally ill and followed the hospital discharge recommendations to give Demerol as necessary. The patient rapidly became comatose and died on 10 September.

Discussion

A description of two patients, with tumours at different sites, treated differently from presentation provides little factual information about carcinoma of the stomach. It can however be used to explore some of the important issues which are often concealed or ignored by large scale studies, and has the added impact of dealing with individuals rather than generalities.

The discussion will concentrate on three areas, the diagnostic decision, the treatment decision and the outcome, and an attempt will be made to demonstrate that the reconciliation of audit as an educational tool with audit as a means of moderating costs is dependant on attitudinal changes.

Diagnostic decision

Both patients were diagnosed by their family physician, the endoscopist providing confirmation only. In patient A, 6 weeks elapsed between presentation and diagnosis by which time patient B had had definitive treatment (Table I). This

*A Syndrome which often follows surgical removal of the stomach, which may consist of belching, bloating and fullness of the abdomen, or a faint, hungry feeling with sweating.

Table I Time taken and cost expended on each phase of illness

Patient A			Patient B		
		Cost			Cost
9. 9.75	Presentation		15. 9.75	Presentation	
	Observation		3.10.75	Diagnostic x-ray	
			4.10.75	Endoscopy and Biopsy	\$291
27.10.75	Diagnostic x-ray		18.10.75	Admitted	
9.11.75	Endoscopy and Biopsy	\$269	20.10.75	Laparotomy and resection	\$762*
					or
			2.11.75	Discharged	\$2224+
18.12.75	Epigastric discomfort		5.12.75	Convalescing well	
27. 5.76	Minimal support		May	Visits to GP and OP	
10. 6.76	R _x Morphine and Cocaine			Onset of symptoms	
	DVT		9. 7.76	OP: Ill	
			20. 7.76	Readmitted	
3. 8.76	Bedridden		28. 7.76		
9. 8.76	Aspiration			Feeding problems	
13. 8.76	Died	\$253	17. 8.76	Radiotherapy and chemotherapy begun	
			18. 8.76	Transfused	
			22. 8.76	Antibiotics	
			27. 8.76	GI Bleed	
			29. 8.76	Discharged	\$1586*
					or
			10. 9.76	Died	\$5699+

*Calculated as the sum of individual items (see Table 3).

+Total cost of hospital inpatient treatment (see footnote Table 3).

difference in two patients who both had symptoms compatible with a gastric malignancy was due to the contrasting diagnostic philosophies exhibited. Apart from blood tests, patient A was treated symptomatically until there was objective evidence of continued weight loss associated with general subjective deterioration. Patient B on the other hand, having refused investigation in the past, this time acquiesced, and radiological investigation of stomach, colon and gallbladder were ordered.

Both approaches can be criticized. Haemoglobin and ESR correlate poorly with carcinoma of the stomach⁶ and do not help in the diagnosis of dyspepsia; barium enema, cholecystogram and barium meal demonstrate a determined attempt to find the pathology, but a less than critical evaluation of symptoms. More importantly the 5 year survival rate for gastric carcinoma of 5–10 per cent has not improved in the last 20 years^{7,8} suggesting that diagnosis once symptoms have occurred has little effect on outcome. Although there is dramatic improvement in survival once early gastric cancer is diagnosed⁹ this does not help the primary care practitioner to make the decision of when and how extensively to investigate his many patients who

present with indigestion. In this instance costs of investigation were \$269.00 and \$291.00 respectively for patients A and B (Table 1).

Treatment decision

Despite the poor 5 year survival, surgery is the only treatment which can provide a cure. There are very few pre-operative criteria which can be correlated with outcome, and physicians have to make treatment decisions without the benefit of impersonal rules. Surgery is therefore offered to patients as the only hope of survival.

Patient A refused the offer and instead chose the alternative: a promise of adequate sedation and analgesia for his symptoms. Review of his chart showed that he had declined vascular surgery for intermittent claudication* 3 years before. In view of his age and incidental illness he was a poor operative risk, and removal of tumour even if possible would have involved proximal or total gastrectomy with an operative mortality of 15–20 per cent.^{7,8} His decision was therefore accepted.

*Pain on walking caused by poor circulation.

Patient B on the other hand consented to surgical intervention; apart from his choice of whether or not to sign his operative consent form there is no record of his being offered any alternative.

One view of this situation is that 'in matters of life and death doctors are not merely operations analysts who formulate the choice for the executive; they are professional decision makers who not only diagnose but decide for the consumer because they decide with less pain, less regret, cooler nerves, and a mind less flooded with alternating hopes and fears.'¹⁰ In the absence of impersonal rules physicians are, however, frequently anxious about their treatment decision. A recent report on the care of the hopelessly ill¹¹ attempts to remedy this by providing guidelines which relieve individuals of personal guilt for their decisions.

As a group, physicians display more anxiety about their deaths than the rest of the population.¹² Despite the ideal view of the cool calculating professional, these attitudes almost certainly affect the way in which doctors evaluate treatment choices and subsequently present them to patients. Whether or not and why patients accept or refuse such offers is an uncharted area. But one can speculate that the need for hope and for death as the enemy to be defeated, besides not being in the best interests of the individual or of society,¹³ are commodities which are more highly valued by the medical profession than the public.

The decision to treat patient B cost between \$762.00 and \$2224.00 (Table I) depending on method of calculation. The difficulty of disentangling hospital cost procedures was one of the interesting sidelines of this investigation and demonstrates the rather spurious objectivity of assessment of monetary costs.

Outcome of decisions

Patient A was recognised to have a terminal illness and maximum psychological and social support was provided by his physician and his family who were aware of the diagnosis. Symptoms were anticipated, sedation and euphorants were increased prophylactically, and there was no hesitation in prescribing Morphine¹⁴ when it was thought to be indicated.

Patient B, however, was assumed to have been cured despite the fact that, in the absence of tumour free nodes, recurrence was highly probable. Chart review suggested that until histological recurrence was demonstrated, symptoms were optimistically thought to have been due to benign post-gastrectomy problems. At this stage acceptance of failure to cure with institution of therapy for terminal illness¹⁵ might have seemed the appropriate choice. His physicians however disagreed and further efforts were concentrated on reducing the tumour mass entailing the added discomfort of intravenous lines, nasogastric tubes and extra investigations. Morphine

was withheld, its use being seen as tacit acceptance of a fatal outcome, and instead Demerol was prescribed despite its unsuitability.¹⁶

Patient B took no active part in these decisions, and although he removed his naso-gastric tube this was attributed to depression. It is not clear whether he or his family were ever told of the recurrence, and mounting anxiety on his part was dealt with by superficial reassurance. Five weeks later when his physician finally accepted the inevitability of his demise, he suddenly found himself rejected and sent home less than 24 hours after active treatment was discontinued.

Not only was the patient not involved: his family physician made few decisions. He saw him regularly but no action was taken for increasing symptoms until he attended a routine outpatient clinic. Similarly on discharge from hospital, instructions to give Demerol were carried out despite the inappropriateness of this drug. This is probably the inevitable result of an initial attitude that cancer must be diagnosed and treated at all costs, and that the hospital is the appropriate institution for this task.

The monetary cost of the decisions made on his behalf was large: comparing investigations only, patient B's care cost seven times that of patient A, if hospital and professional costs are included the difference becomes a factor of 20 (Table I). There were also other less easily quantifiable but nevertheless important costs which were accumulated by patient B.

Conclusion

Quality of care has been operationally defined as the extent to which scientifically established procedures in diagnosis and treatment are properly applied to patients who can benefit from their application.¹⁷ This approach focuses on the efficacy of procedures, and studies have already suggested guidelines for use of various treatments.¹⁸ The problem however is that large areas will remain unquantifiable by these means, and the danger is that guidelines may, by failing to look at underlying assumptions, justify the status quo instead of acting as agents of change motivating individual doctors to new levels of awareness and practice.¹⁹

In this case some simple things can be measured. Patient A lived less time but spent more time at home (Table II). Patient B had far more money spent on treatment and investigation. Evaluating these facts is much more difficult. The most expensive item for patient A was his family physician's time (Table III), a commodity which seems to have been appropriately used for a patient who benefited from it: in patient B the most expensive item, intravenous nutrition, accords with recommended management of malnourished patients undergoing chemotherapy.²⁰ The value attached

Table II Length and place of illness

	Patient A	Patient B
Presentation to GP to death (weeks)	49	52
Weeks in hospital		8
Weeks at home	49	44

Table III Itemised cost of care for each patient

	Patient A Number	\$Cost	Patient B Number	\$Cost
Investigations				
X-rays	12 films	75.60	24 films	151.20
EKG			2	19.40
SMA12	1	2.04	14	28.56
SMA7	2	7.48	14	21.66
Cytology	1	1.36	2	2.72
Histology	1	5.10	2	10.20
Liver scan			1	24.00
Electrolytes				
+ Osmolality			21	157.08
Bacteriology			15	133.28
Haematology			11	16.17
TOTAL		91.58		564.27
Medications				
			I.V. Food	
			Blood	
			Anti-	
			biotics	
		50.00	etc	825.30
Radiotherapy				
			Treatments	
			× 14	228.90
Specialist Services				
Consultations	1	38.00	3	96.00
Endoscopy	1	180.00	2	216.00
Surgery				250.00
Anaesthetic				87.00
Daily care				209.00
Outpatients				75.00
TOTAL		146.00		933.00
GP services				
Assessment	1	13.00	1	13.00
Office Visits	5	31.25	9	56.25
Home Visits	20	190.00	2	19.00
TOTAL		234.25		88.25
GRAND TOTAL		521.83		2,639.72
*Hospital in-patient care		57 days at \$139.00		7,923.00

*This sum (for total in-patient care) is charged to potential outside agencies such as workmen's compensation. It includes all nursing care, hotel charges and investigations.

to days of life, and days at home as opposed to days in hospital is even more problematic. Subjectively however, there seems to be a case to be made that in patient B the attempt to cure was not only costly but pre-empted adequate caring.

If this case is accepted, then it can be seen that audit using objective tests of efficacy to reduce costs and improve quality is unlikely to be effective unless it is prepared firstly to question assumptions such as the belief that prolongation of life and cure is the objective of medical management, and secondly to make subjective value judgments about the quality of life. If however it is prepared to do this then we may find that caring begins to be valued as highly as attempted curing, and that patients are more realistically involved in decision making with the result that physicians may be surprised to find more of their patients refusing marginally beneficial procedures. If this should happen then costs may indeed be reduced, and the dilemma of the physician who says that 'I know of a treatment that may help you, but as I balance your condition against that of society you lose out'¹ could become redundant.

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