Correspondence

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TO MEET SPIRITUAL NEEDS OF THE CANCER PATIENT—A RESPONSIBILITY FOR THE ONCOLOGIST?

Sir—Only about one half of all cancer patients are cured. Most of the others have to go through a period in which the goal of treatment is no longer cure and not even prolongation of life, but reduction of suffering and pain. SAUNDERS (3) differentiated between 4 types of pain, each of which needs the attention of the team in charge of the patient: *Physical pain,* caused by dysfunction and insufficiency of different organ systems; *psychologic pain,* due to depression, anxiety and grief; *social pain,* arising from social problems in relation to family, professional activity, and other relevant spheres; and *spiritual pain,* based on philosophic or religious problems.

During the past 5 to 10 years, health workers have become increasingly aware of the necessity of active palliation based mainly on the commitment and interest of nurses, social workers, and psychologists. However, there is a surprising scarcity of scientific papers by Scandinavian oncologists dealing with *all* aspects of palliative treatment. The available literature deals with pain relief or the solution of physical and social problems. The need for spiritual care with its philosophic or religious aspects seems to have been largely neglected. The daily practice of the oncologist is filled with somatic problems, and most oncologists do not consider spiritual care as a part of the treatment of the terminal cancer patient. This is not meant to be an accusation; but is only a statement of facts.

There are many reasons why oncologists are not sufficiently engaged in the palliative treatment of the individual patient; and more especially do not observe the need for spiritual care:

1) Lack of time, due to other activities given higher priority.

2) A feeling of insufficiency as to how to handle a patient who no longer can benefit from specific somatic cancer treatment.

3) Personal reluctance to become involved in existential questions concerning the meaning of life and death.

4) Recognition of the fact that any intimate personal contact between the oncologist and a patient with a need for spiritual care might be difficult to maintain after the hospital stay, due to the geography of Scandinavia and the structure of the health and welfare services.

5) Reluctance to intrude upon one of the patient's most intimate spheres, that of philosophic and religious life.

6) Awareness of the fact that techniques and results of palliative treatment are difficult to evaluate with methods accepted by scientific medicine. Whole-hearted engagement in supportive and palliative treatment, especially in the case of spiritual care, is time-consuming, but of less benefit for the personal scientific career.

The first step in an optimal palliative treatment is recognition of the patient's needs by the team in charge of the case (doctors, nurses). It is the oncologist who bears the primary responsibility for initiation of treatment in the individual patient, irrespective of whether it is a case of physical, psychologic, social, or spiritual care. This responsibility can secondarily be shared with, or transferred to, other persons, as nurses, social workers, a hospital chaplain, and a clinical psychologist. Many patients, however, want the oncologist who has followed them during the initial treatment period, to continue to feel responsibility for treatment also during the late phases of the disease. At a time when many patients take part in clinical trials for research purposes, it would seem to be of great ethical importance that oncologists should maintain their interest in their patients also during this period, and actively participate in the palliative treatment.

It is often difficult for the oncologist to meet the patient's need for spiritual care. For most terminally ill patients in Scandinavia, this means consideration of religious and philosophic problems. QVARNSTRÖM (1) found that 4 out of 15 patients expected and experienced relief through their faith in God. Studies in Norway (2) have shown that 30 to 50 per cent of the population expects some help from the Church when confronted with their own death. Thus it seems that at least one third of patients with advanced cancer reflect upon their relation to God or ponder over philosophic questions.

Are oncologists sensitive enough to recognize a patient's signals indicating a need for spiritual care? Probably this is not the case. One main reason is undoubtedly the reluctance felt by the oncologist of being confronted with spiritual questions which he feels incapable of handling. Most oncologists also have a natural fear of forcing a terminally ill cancer patient in any particular religious or philosophic direction.

On the other hand, it is the responsibility of the oncologist to recognize the need for spiritual care if this can help the individual patient. In this situation, and after an open discussion with the patient, the oncologist may and should seek assistance from other professionals like the hospital chaplain or the patient's own vicar.

The importance of spiritual care and the role of the responsible oncologist were clearly demonstrated for the author by the following case history.

T. N., aged 56, a physician, had a progressive hormone-resistant metastatic cancer of the prostate. He was fully informed about the prognosis and the lack of effective treatment. He wanted to continue to work within his profession as long as possible. During 1984–1985 he subsequently entered two phase II studies necessitating weekly follow-up visits at an out-patient department. In spite of the frequent consultations, the contact between the patient and the responsible oncologist remained at a level of physical palliation. Each change in analgesic, cytostatic and hormonal treatment was discussed with the patient, while contacts regarding social or psychologic problems were avoided, probably due to mutual reluctance. During the spring of 1984 he once came late to a scheduled follow-up examination, and apologized by mentioning that he had had a prolonged conversation with his vicar. This excuse was interpreted by the author as a signal indicating a need for spiritual care. During the following conversation the patient confirmed that he wanted the oncologist to become aware of this need. In agreement with the patient, the vicar was contacted and included in the treatment team. Further palliative and supportive treatment consisted in intensive analgesic therapy, social and psychologic support for the patient and his wife, and active spiritual care by the vicar. The patient continued his work until two weeks before his death. During the last week of his life, when he was confined to bed at home, he received several blood transfusions, enabling him to finish the final arrangements for his last will and testament. Two days before he died he received the Holy Communion in his home. He died peacefully surrounded by his family, who also during the following weeks continued to have supporting contacts with the oncologist and the vicar.

The efficacy of such total palliative care of a terminally ill cancer patient was one of the most instructive experiences during the author's 18 years of professional life as a medical oncologist.

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DOES SUCRALFATE REDUCE RADIATION-INDUCED DIARRHEA?

Sir—Pelvic radiation therapy is usually associated with intestinal symptoms, especially diarrhea, due to the radiation sensitivity of the mucosa. The desirability of reducing these symptoms is obvious, and during recent years the main interest has been focused on bile-acid malabsorption (1, 2, 11). Bile-acid sequestering resins, cholestyramine, and colestipol, have been shown to be rather effective in preventing acute diarrhea induced by pelvic irradiation. However, these drugs are associated with a high rate of side effects (2, 11). Sucralfate, an aluminium hydroxide complex of sulfated sucrose, has been shown to be very effective in healing gastric ulcers (4, 5, 7, 12). In the acid medium of the stomach sucralfate becomes viscous and binds to denuded mucosa, forming a protective barrier. Thus, it selectively coats areas of ulceration, providing local protection for raw areas from the effect of acid, enzymes, and other irritants for several hours after ingestion (8, 9, 12). Virtually no sucralfate is absorbed from the gastrointestinal tract (6, 8, 9). Despite extensive use, only extremely mild side effects have been observed in connection with the therapeutic use of sucralfate (3–7). It was therefore considered of interest to report the observation that sucralfate may prevent or reduce radiation-induced diarrhea.

In an open consecutive study performed during 3 months, sucralfate was administered to patients receiving pelvic irradiation. From the start of the study the first 15 patients planned for pelvic irradiation were included. None had undergone pelvic surgery. A dose granulate of sucralfate was dispensed to each patient when symptoms of diarrhea appeared at radiation doses in the true pelvis as indicated in Table 1. The patients were instructed to ingest 1 dose package dissolved in water 4 to 8 times daily.

The whole pelvis was irradiated with high energy roentgen beams (4–20.9 MV). The mean target dose was 2 Gy a day, five days a week, and the total dose 50 to 67 Gy. The study was concentrated on gastrointestinal function. Each week during radiation therapy, the daily number and consistency of the stools were recorded. For registration of the bowel action a special diarrhea scale was used (Table 2). The registration was terminated concomitantly with the irradiation. The general condition was followed throughout the treatment period, and the occurrence of symptoms such as nausea and vomiting were especially noted.

Two patients were excluded early in the study because of discomfort with meteorism and disagreement about the design of the study, respectively. Apart from these two patients, the compliance was good, and no other side effects were observed. None of the patients seemed to have discontinued the medication, and no obvious change in the diet was reported. There was no significant weight loss.

All patients experienced marked subjective relief of the gastrointestinal symptoms. This was further substantiated by the diarrhea score, which on average was lower following sucralfate ingestion than before (Table 2). Obviously the patients displayed only minor alterations in bowel habits even at the end of the radiation treatment. None of the patients required symptomatic therapy with loperamide or diphenoxylate.

Table 1

Age, sex, type of cancer, radiation dose at the start of sucralfate treatment, and total radiation dose

Case No.	Age and sex	Site of cancer	Radiation dose at start of sucralfate treatment (Gy)	Total radiation dose (Gy)
1	59 M	Prostate	35	67
2	57 M	Prostate	35	67
3	65 F	Bladder	20	50
4	65 M	Bladder	35	50
5	53 F	Rectum	17	52
6	67 M	Prostate	13	67
7	61 M	Prostate	35	67
8	54 F	Bladder	30	50
9	61 M	Prostate	35	65
10	72 M	Prostate	12	60
11	74 M	Prostate	12	66

Table 2

The diarrhea score at the start of sucralfate treatment, at the end of radiation therapy, and midway between these two scoring events

Case No.	Diarrhea score*		
	Initial	Midway	Final
1	1	0	1
2	2	1	1
3	1	0	0
4	1	0	0
5	2	0	1
6	1	0	0
7	1	0	0
8	1	1	1
9	2	0	1
10	1	0	1
11	1	0	1
Mean	1.3	0.2	0.5

* 0=No change in bowel function.
1=Minor symptoms of diarrhea.
2=Moderate symptoms of diarrhea.
3=Copious diarrhea with watery stools.

The present preliminary study suggests that the aluminium hydroxide complex of sulfated sucrose, sucralfate, may be of value in preventing diarrhea during abdominal irradiation. It should be compared with earlier observations that about 75 per cent of patients receiving pelvic irradiation develop diarrhea. At present, the mechanism underlying the possible protective effect of sucralfate still remains a matter for speculation. The cytoprotective effect proposed earlier (12) seems to be a plausible explanation for the prevention of radiation-induced mucosal symptoms as well. This hypothesis is also supported by our preliminary observation that sucralfate appears to have a marked effect also

on radiation-induced damage of the oral mucosa. The capacity of binding bile salts (8, 9, 13) may be of additional importance in preventing diarrhea.

Advantages of sucralfate are the simple method of administration and the minimal frequency of observed adverse effects despite extensive use (3–7). By reducing radiation-induced mucosal symptoms treatment with sucralfate may improve the quality of life and it may be possible to shorten the 'split-dose' pause. It has been shown that colorectal cancer has a very short cell cycle time (10). Decreased total treatment time with radiation therapy may therefore increase the therapeutic ratio.

In conclusion, sucralfate seems to be of importance in preventing radiation-induced diarrhea. However, before any final conclusion can be drawn a randomized double blind trial using placebo is needed.

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A TECHNICAL DEVICE FOR IRRADIATION IN CARCINOMA OF THE PENIS

Sir—Squamous cell carcinoma of the penis is a rare disease. It occurs almost exclusively in uncircumcised men, and is usually associated with phimosis and poor genital hygiene. Although undifferentiated tumours and tumours in younger patients may be aggressive most squamous cell carcinomas of the penis tend to reamin localized in the primary site for a considerable length of time (2).

The primary tumour has most often been treated by total or partial amputation of the penis, but radiation therapy has also been frequently used, especially for rather superficial, papillomatous carcinomas. Good results have been reported in T1 and T2 tumours after irradiation alone (2, 3) or irradiation combined with bleomycin (1). Irradiation alone, or combined with bleomycin, avoids the functional disability and the psychologic distress caused by loss of the penis, and is obviously the treatment of choice if it gives control of the disease comparable to surgery. However, with the common techniques, it is difficult to keep the penis in the proper position during the radiation treatment. A new applicator has therefore been developed which gives good positioning of the penis and facilitates reproducible estimation of the radiation dose (Figs 1, 2).

The patient lies in the supine position with the penis positioned inside a perspex tube. The tube is attached to a larger perspex base plate resting on the skin (Figs 1, 2a). A latex cloth is placed as close as possible to the base of the penis and is then fixed to the edges of the plate. The perspex tube is connected with a

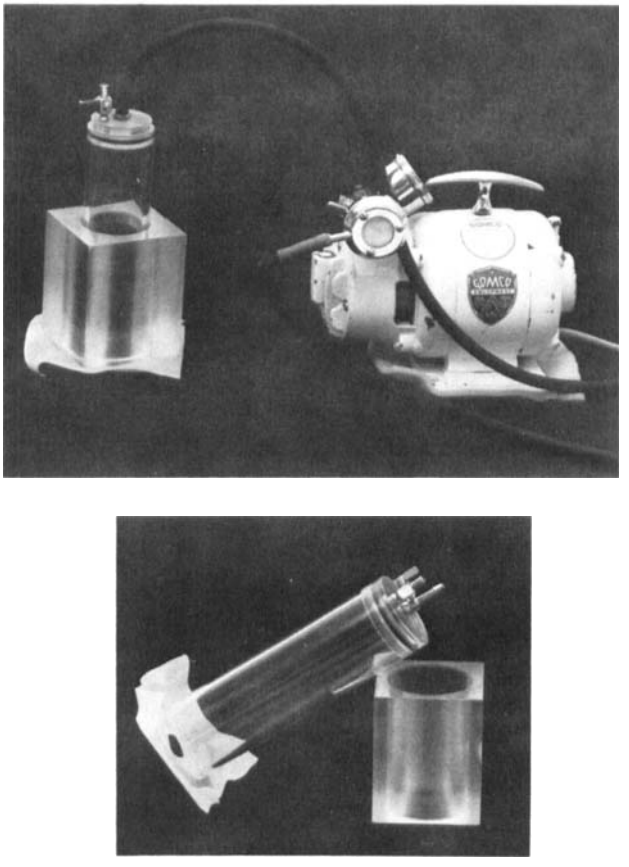

Fig. 1. Photograph of the equipment showing the perspex tube with the latex cloth, the bolus block, and the vacuum pump.

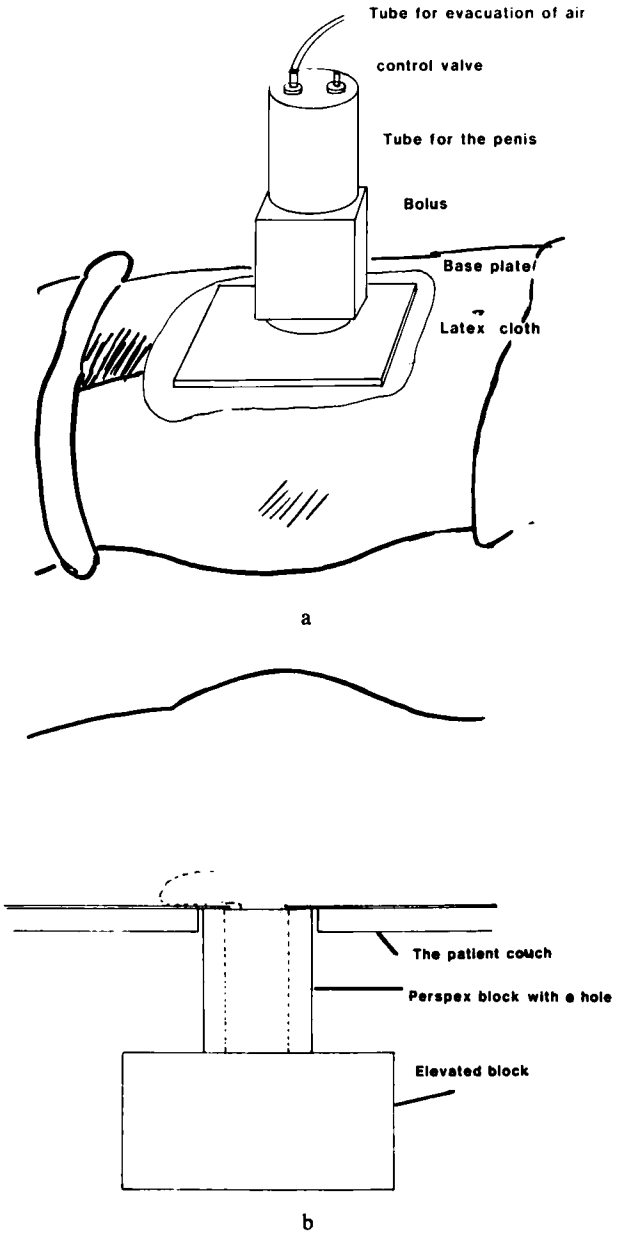

Fig. 2. Schematic illustration of the equipment used a) with patient in supine position, b) with patient in prone position. The penis is irradiated from two opposite lateral fields.

flexible tube to a vacuum pump. The air pressure in the tube can be controlled by a valve on the top of the tube. The suction effect produced by the vacuum pump keeps the penis in a fixed position during the treatment.

In order to achieve a sufficient dose in the superficial parts of the tumour a perspex bolus block of proper thickness and with plane parallel surfaces is placed outside the tube. To facilitate the inspection of the position of the penis the bolus can easily be moved along the tube. The equipment abolishes the risk that the penis will be squeezed by the bolus. The air gap around the penis is minimized by the use of two alternative dimensions of the tube and the corresponding bolus block. In some cases, it was found more convenient to treat the patient in the prone position (Fig. 2b). The penis then hangs through a small hole in a thin plate of macrolon, resting on the top of the treatment couch where a narrow section has been removed on one side of the table top. From below, the perspex block with its cylindrical hole is elevated against the plate in order to surround the penis. The described device has been used in connection with 4 to 6 MV roentgen beam therapy from linear accelerators given against two opposing lateral fields. However, the device can, of course, also be used in connection with ^{60}Co, orthovoltage roentgen rays, or electron beam therapy.

The described device has improved standardization and reproducibility of the dosimetry. Furthermore, it is a more comfortable arrangement for both patient and treatment staff.

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