investigations will hopefully open perspectives for an earlier diagnosis of pancreatic cancer (as is the case for colorectal cancer) and might yield new therapeutical approaches.

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Problem Areas in Pain and Symptom Management in Advanced Cancer Patients

G.W. Hanks

INTRODUCTION

THERE IS one area of cancer treatment that has seen major advances in recent years, is relatively inexpensive and brings considerable gains to patients in terms of improvements in quality of life. This is the area of symptom management in patients with advanced or terminal disease.

FAILURE TO USE EXISTING KNOWLEDGE AND MEDICINE

Pain has been the usual focus of attention in the management of patients with advanced cancer because it is the most common, distressing syndrome. We have the means and the knowledge to control pain effectively in the majority of cancer patients [1]. However, many patients continue to suffer pain because the means and the knowledge are not available to their carers. Thus, the major need is not for new research to develop novel treatments, but for educational initiatives to teach the well-proven methods to all those who need to know, and political lobbying to facilitate the provision and prescription of strong opioid analgesics such as morphine. The current issue of *Cancer Surveys* [2] brings the story up to date and considers new approaches to the problem.

We have made some progress in both of these areas, but it is patchy and inconsistent. Pain in cancer can be relieved in 80–90% of patients' with pharmacological treatment [3], but the actual response rates being achieved are estimated to be no greater than 50% in Western societies and perhaps 10% in the developing world [4]. In the U.K., failure to achieve optimum results must be because of lack of knowledge—we have probably the widest range of strong opioid analgesics available and the least bureaucratic prescribing regulations. This problem is now being addressed. Every clinical medical school in the U.K. includes teaching on pain control and palliative care in the undergraduate curriculum, and in over half of these schools, students are examined on these subjects. Palliative medicine became a recognised subspeciality of general internal medical in

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1987, and there are now almost 200 full-time specialists in this field.

In some countries, the situation is less encouraging. Even in Western Europe, there is still a widespread reluctance to use strong opioids, and the prescribing of such drugs is complicated by archaic laws [5, 6]. Such attitudes and prescribing difficulties are even more widespread in developing countries, and particularly in those parts of Asia that have long been battling against abuse of opioid analgesic drugs. For regulatory authorities in such countries to accept the importance of making these drugs easily accessible to patients is a much greater hurdle than for others who have not had to contend with widespread abuse problems.

Some patients with cancer-related pain do not respond well to opioid analgesics, and the largest group are those with neuropathic pain. The terminology here has become confusing, and we prefer the term "opioid poorly responsive" pain to describe such problems [7]. We do not understand this relative lack of response, which is likely to be a function not just of the pain itself but also of the patient and of the particular opioid agonist. The possible neurophysiological basis for opioid poorly responsive pain is reviewed in [2], as is the question of whether tolerance develops to long-term opioid administration for cancer pain and, if it does, whether it matters.

Opioid analgesics depress CNS function in a number of ways. For instance, they make patients drowsy and are likely to interfere with cognitive and psychomotor function. As opioids are the mainstay of cancer pain management, this is obviously relevant to decisions about whether patients may be allowed or encouraged to drive or carry out other skilled activities. This has been a relatively neglected area of research. See [2] for review.

Two other problematical areas are the management of pain and other symptoms in children with cancer, who are not little adults, which is why it is important that there is research specific to children in elucidating optimum management strategies; and incident pain, for which there have been no randomised clinical trials of the management of this difficult clinical problem. It is hardly surprising then that this is an area that causes great problems for clinicians [2].

OTHER SYMPTOMS

The discovery and development of the 5-hydroxytryptamine ($5HT_3$) receptor antagonist anti-emetics has had a major impact in oncology practice. However, because they have produced such a dramtic improvement in the treatment of some types of chemotherapy-associated nausea and vomiting, they have slipped into the role of "wonder drugs", and are being used in every difficult problem of emesis. Unfortunately, there are causes of nausea and vomiting, particularly in patients receiving palliative care, that are not amenable to the $5HT_3$ blockers. This can be predicted from animal models, and the basic pharmacology of this group of drugs is reviewed in *Cancer Surveys* by the laboratory that first demonstrated their anti-emetic potential [2].

The medical management of terminal intestinal obstruction is a prime example of how applied clinical pharmacology can reap considerable benefits in what appears at first sight to be an insoluble problem. The principles that underpin the approach to intestinal obstruction in patients not amenable to surgical intervention are well established, but the details of the drug regimens continue to evolve [2].

Other gastrointestinal symptoms are common in advanced cancer and are also major problems in AIDS. The approach to symptom management is not exactly the same in these two conditions, but much can be learnt by cross-fertilisation of ideas from the different disciplines involved in their management [2].

One of the most difficult symptoms to manage, particularly in the final stages of cancer, is breathlessness, and this is reflected in the fact that this symptom is often much less well controlled than pain [8]. The measurement of the outcome of interventions is beset by all of the difficulties associated with subjective symptoms, and is compounded by the fact that most patients in whom this symptom is a problem are very ill and frail. This makes evaluation of new treatments particularly difficult. However, new approaches to the management of breathlessness continue to be developed [2].

The management of hypercalcaemia of malignancy has been transformed in recent years by the advent of bisphosphonates, reviewed in [2]. Also discussed are other metabolic and haematological paraneoplastic syndromes.

Finally, an important area of palliative medicine research is the evaluation of service provision and the development of tools for clinical audit. Audit and research are closely related [9], a major function of audit being to identify questions that need to be answered by research. Such health services research is crucial to the development of the still youthful speciality of palliative medicine.

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