Close to 100,000 new cases of invasive gynaecological malignancy are diagnosed each year, both in the United States and Western Europe, and account for about 30,000 deaths in either of these two geographical areas.\textsuperscript{1,2} Although many women will be cured eventually, most will require many months or years of treatment with major physical and psychological consequences, leading to substantial reduction in their quality of life (QOL).

Gynaecological malignancies (cervical, ovarian, endometrial, vulval and vaginal cancers) often require a multidisciplinary approach including surgery, chemotherapy and radiotherapy. As a result, the patients will endure significant disruptions of their physical well-being during and after treatment. Because of the pelvic location of these tumours, many patients will experience problems with their urinary, gynaecological and lower digestive tract functions, aggravated by sexual dysfunction associated with anatomical and physiological changes. All this generates anxiety in addition to that associated with the fear of recurrence. Especially in patients who are not candidates for cure, these local problems, coupled with manifestations of metastatic disease, impact significantly on the QOL.\textsuperscript{1,2}

Supportive care is a multidimensional field which covers all aspects of cancer patient management, except for the specific aspects of antineoplastic therapy, with the goal to preserve as much as possible the overall well-being, i.e. QOL. Comprehensive supportive care implies the collaborative intervention of many skills and competences, some of which are general and apply to all cancer patients, and others which are more specific to some tumour types.\textsuperscript{3}

As far as the specific supportive care for women with gynaecological malignancies is concerned (see Table I), one of the main areas of concern is bowel obstruction, which is frequently associated with cachexia, malnutrition, nausea and vomiting and ascites, another common problem, especially in patients with ovarian cancer.

**Table I: The most common treatment- and tumour-related effects of gynaecological cancers**

| Bowl obstruction | Ascites          |
|------------------|------------------|
|                  | Nausea and vomiting |
|                  | Cachexia and malnutrition |
| Sexual dysfunction | Distorted body image |
|                  | Anxiety and depression |
|                  | Anatomical and functional changes |
|                  | Modification of feminine behaviour |
| Anxiety and depression | Fear of cancer outcome |
|                  | Sexual dysfunction, loss of femininity, change in body image |
|                  | Disruption of the socio-familial network |
| Pain             | Local neoplastic extension with skeletal and neurologic invasion |
|                  | Peripheral neuropathy resulting from chemotherapy (cisplatin, taxanes) |
| Fatigue          | Depression        |
|                  | Anaemia           |
|                  | Cancer progression |
|                  | Cancer therapy    |

In inoperable cases, percutaneous endoscopic gastrostomy or nasogastric drainage, with the simultaneous use of octreotide, antiemetics and analgesics, can allow hydration and decrease intestinal secretions, maintaining optimal fluid equilibriu. Corticosteroids may sometimes achieve transient amelioration of the obstructive symptoms.

Malnutrition and cachexia resulting from digestive tract dysfunction, but also from cancer progression...
and from anorexia related to specific and nonspecific drug therapies, frequently pose the problem of how aggressive nutritional support should be, especially when curative or significant palliative outcomes are no longer possible. Many patients, even at very advanced stages, do not agree with discontinuation of nutritional support. In such cases, total parenteral nutrition might be the only way to preserve QOL, in spite of its own risks, cost and discomfort.

Another specific area for supportive care in patients with gynaecological cancer is sexual dysfunction, which is often complex and multidimensional, involving both physical and emotional aspects, the latter relating to fear and anxiety about future life in a setting of distorted body image. Here, psychoeducational interventions can impact positively on sexual functioning and overall well-being.

Depression and anxiety is observed in at least half of women with gynaecological cancer and this correlates with the number of gynaecological symptoms. It is obvious that the cancer-related changes of the feminine behaviour, which can to some extent be restored by the use of oestrogens, play an important role. Older women, those without a partner and those with a low socio-economic status or without family or religious belief, suffer more from adjustment disorders. This is why early pharmacological and psychological intervention is extremely important to cope with depressive disorders among these patients. Actively seeking support for psychological concerns enhances QOL and mood, and it is likely that some patients may also benefit from cancer support groups.

The use of complementary and alternative medicine in gynaecological oncology patients is widespread; it might be a surrogate for the need for more supportive care, namely psycho-social help. There is very little information about the overall benefit from these therapies, as no scientific studies have been performed so far in this area. However, the frequent use of these complementary and alternative medicines suggest that early psychological support for the patients with gynaecological (and other) cancer diseases is often lacking and should become a major constituent of effective and comprehensive supportive care.

Pain also has some special features in patients with gynaecological cancer. These include the neuropathic pain associated with the administration of cisplatin and taxanes, which can last for months after the completion of therapy. Such pain does not always respond well to opioids and more often requires the use of antidepressants, anticonvulsants or more specific drugs.

Another particular aspect in these patients is pain that results from the neoplastic invasion of the nervous structures within the pelvis (cauda equina, lumbosacral plexuses and roots). Radiotherapy is the optimal approach for such pain, but is often not feasible because of previous radiation to the area. Expert medical treatment, using combinations of analgesics with different modes of action as well as local anaesthesiological interventions, are often required to control these disabling and difficult to manage symptoms. Like other types of neoplastic diseases, gynaecological tumours may be associated with a breakthrough pain syndrome which complicates pain management.

Finally, fatigue is perhaps the most frequently reported symptom in patients with gynaecological neoplasia; several factors are usually implicated in combination: anaemia, pain, malnutrition, insomnia, psychological distress and others. Among these factors, anaemia is the one which can be addressed quite easily through blood transfusions or administration of erythropoietin. There are indications that correction of anaemia can impact favourably on fatigue and QOL. Unfortunately, there are risks associated with both blood transfusion and erythropoietin administration, which should be balanced in terms of risk and benefit in individual patients.

Besides these relatively specific aspects of supportive care for patients with gynaecological cancer, the vast and diversified scope of supportive care that applies to all patients with cancer is also valid for those with gynaecological tumours.

Actually, it is difficult to define what “best” supportive care is. As a matter of fact, the term “best” is quite inappropriate, as it would imply that we have reached a level of excellence that we have clearly not achieved. A recent review indicates that, in most publications dealing with “best” supportive care or supportive care, there is no clear definition of the concept. The use of an exclusive rather than an inclusive definition of supportive care in oncology allows us to consider any new developments that could contribute to the QOL of patients with cancer, whether specific anticancer treatment is administered or not, rather than being caught up in a definition of clinical care that is in constant evolution.

On the other hand, because it is impossible to predict in advance what amount of supportive care an individual patient will require during the course of the neoplastic disease, it might be important to provide a list of available supportive approaches in all the protocols designed for the evaluation of any anticancer therapy, in order to ensure that optimal care can be provided.
Presently, such a list might encompass a series of items, as indicated in Table II, with a clear awareness that it must be constantly adapted to the changing possibilities of our therapeutic armamentarium.8

Table II: Areas in which expertise should be available in order to provide adequate supportive care

| Area                      |
|---------------------------|
| Infection                 |
| Anaemia                   |
| Bleeding                  |
| Nausea and vomiting       |
| Diarrhoea                 |
| Nutritional support       |
| Pain management           |
| Palliative care (as described by Temel et al9) |
| Obstructive syndromes     |
| Malignant effusions       |
| Oral mucositis            |
| Stoma care                |
| Intravenous access        |
| Intensive care            |
| Central nervous system metastases |
| Skeletal metastases       |
| Venous thromboembolism    |
| Psychosocial and ethical issues |
| Multicultural dimension   |

An excellent example of the changing scope and nature of supportive care is provided by a recent paper by Temel et al showing that early palliative care led to significant improvements in both QOL and mood. In fact, compared with patients receiving only standard oncological care, the patients who received early palliative care in addition had less aggressive care at the end of life, but lived longer.9 In this important study, performed in ambulatory patients with newly diagnosed metastatic non-small-cell lung cancer (NSCLC), specific oncological therapy (chemotherapy, radiotherapy or epidermal growth factor receptor tyrosine kinase inhibitors) was given to all. Although nononcological standard care (supportive care) was not described precisely, early palliative care was clearly defined and consisted of visits at the palliative care service, starting within three weeks after enrolment, with specific attention to physical and psychosocial symptoms, establishment of goals of care, assistance with decision making regarding treatment, and coordination of care on the basis of the individual needs of each patient.9

The need to include palliative aspects in standard supportive care is particularly important for studies with a nonspecific treatment arm, in which many patients are often nearing the end of life and have usually experienced several successive oncological treatments and their related toxicity. Moreover, because the early palliative approach can influence survival, as shown in the study by Temel et al,8 it becomes a mandatory component of supportive care, whether the patient is managed in the context of a study, or not.

NSCLC has served as a model for defining what misleadingly has been called “best supportive care,” but the conclusion applies to other tumours as well, namely gastrointestinal neoplasms, and probably gynaecological cancers as well. In gynaecological cancer patients there is a specific array of emotional challenges that impairs QOL (anxiety, anger, guilt, depression, change in lifestyle, sexuality, social relationship, fear of pain, change of body image and loss of femininity). Even if many patients are cured eventually, most of these issues persist for years. Thus, these important questions, that have the potential to alter the QOL of patients with gynaecological cancer, should be specifically taken into account in an early supportive/palliative care approach.

Although it is no longer necessary to run first-line therapeutic studies with a no-treatment arm for most gynaecological tumours, a nonspecific treatment approach, consisting only of adequate supportive care, remains a sensible attitude towards many patients with advanced cancer, whether included in clinical trials or not.

Therefore, our duty as oncologists is to deliver to our patients the optimal level of comprehensive care, and, in addition, for those included in controlled trials, to ensure comparability of the studied groups. This requires that a definition of supportive care, including palliative care, founded on evidence-based data, is prepared and periodically reviewed, as newer approaches develop.10

Finally, and because of the multicultural dimension that surrounds our practice, ethical and philosophical aspects should be addressed. This will require an extensive review of literature and guidelines and would most likely be achieved best through a multidisciplinary international effort.

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