

BY KATHARINA MIEDZINSKA



Optimising the management of cancer-related pain

Cancer is one of the leading causes of death globally, responsible for an estimated 9.6 million deaths in 2018. About one in six deaths is due to cancer, and the trend is upward. According to the World Health Organization (WHO), the number of new cancer cases is on the rise globally and deaths from cancer worldwide are projected to reach over 13 million in 2030.

Besides the threat of dying, cancer-related pain (CRP) is the most common source of distress attributed to the disease. Pain is highly prevalent in the cancer population and a burdensome symptom with the potential to negatively impact patients' quality of life. Both acute and chronic pain are well documented as being among the most frequent and distressing symptoms in cancer. It has been estimated that the prevalence of pain in newly diagnosed cancer patients is approximately 30 percent, depending on cancer type and other factors, and that 75 percent of patients with advanced disease deal with pain every day.

Statistics like these are well documented in many epidemiological studies. However, what is often not considered is that these statistics have not changed significantly in the past 30 years. Acknowledging the magnitude of the problem, in 1986, the WHO published the analgesic ladder in order to establish guidelines for cancer pain management. Despite remarkable advances in understanding, diagnosing, and treating cancer since then, pain relief is still not adequate. This constitutes a call to action to best use available treatments while developing new therapies, in order to reduce the large number of patients suffering unnecessarily due to insufficient CRP-control, according to Prof. Afshin Gangi, from the department of interventional radiology at the University Hospital of

Strasbourg, France, who will chair today's special focus session.

The term 'cancer pain' distinguishes pain in patients with cancer from pain in patients without tumours. However, it does not convey details of the characteristics, etiology, and pathophysiology of pain. Oncological patients experience different types of pain in multiple sites. Cancer causes pain as it compresses nerves, invades bone, produces obstructive symptoms in the pulmonary, gastrointestinal, and genitourinary systems, and distends involved visceral organs, among other ways. While chronic pain syndromes are usually directly related to the neoplasm itself or to a cytostatic therapy, acute pain syndromes usually come along with diagnostic or therapeutic interventions. Although some are disease-related as well, such as bone pain from a pathologic fracture, visceral pain from acute obstruction or perforation of a hollow structure, or pain resulting from an acute haemorrhage into a tumour.

As for today, a large proportion of patients with advanced systemic cancers cannot be cured. Nevertheless, appropriate diagnostic and therapeutic tools are available to ensure that pain is sufficiently assessed and controlled during the course of the disease.

"Alleviating pain should be at the forefront of palliative care of cancer patients," said Gangi. "Interven-

tional procedures may be indicated in patients with chronic, refractory, and severe pain. In selected patients, image-guided interventions offer the potential to improve not only quality of life, but also the patient's function and independence. Also, these interventional procedures broaden the ability of palliative care providers to control pain and limit medication side effects," he said.

Novel image-guided interventions have made a significant impact in the management of CRP, which, in many cases cannot be sufficiently treated or can be relieved only to a limited extent by conventional pain therapies. Gangi: "As interventional radiologists, we care for an increasing number of oncological patients with the broad spectrum of palliative intent minimally invasive procedures that we provide. These include, for example, neurolysis, cementoplasty, screw fixation, thermal ablation, and embolisation. The availability of minimally invasive, image-guided interventions offers interventional radiologists a major role in the multidisciplinary management of cancer pain. It is important that interventional radiologists understand their meaningful impact when it comes to pain management and thus, improving patient's quality of life."

One of the most common types of pain in patients with advanced cancer is pain from bone metastases, which are common in patients

with different types of advanced cancer, including breast, prostate, lung, colon, and stomach cancers. Since interventional radiologists can offer pain relief through different radiological treatments, such as embolisation, thermal ablation or vertebral augmentation, they are increasingly being included in the treatment process of oncological patients with painful bone metastases. It is of vital importance that those physicians are aware of a host of factors that influence the formula for palliative care, as Dr. Georgia Tsoumakidou, from the department of interventional radiology at the University Hospital of Strasbourg, will show in her presentation on bone metastases. She will specifically address

indications and techniques of pain palliation in patients with musculoskeletal tumours, patient selection, clinical and imaging follow-up and the question of how to promote interventional procedures in a multidisciplinary team.

Similar key topics will be discussed by Prof. David Craig Madoff, from the division of interventional radiology, Weill Cornell Medicine, New York, and Prof. Bruno Kastler, from Radiologie Hôpital Necker, Université de Paris Descartes, who will discuss abdominal and pelvic pain management with minimally invasive techniques. The session will close with a panel discussion addressing the important question of how to integrate the interventional radiologist into the palliative care team.

Special Focus Session

Friday, March 1, 08:30–10:00, Studio 2019

SF 9a Pain palliation in cancer patients

- » **Chairperson's introduction**
A. Gangi; Strasbourg/FR
- » **Pain from bone metastases**
G. Tsoumakidou; Strasbourg/FR
- » **Abdominal pain management with minimally invasive techniques**
D.C. Madoff; New York, NY/US
- » **Pelvic pain management with minimally invasive techniques**
B. Kastler; Paris/FR
- » **Panel discussion: How to integrate the interventional radiologist in the 'palliative care' team**

Don't miss today's Joint Session of the ESR and ESTRO to learn about MR-integrated radiotherapy

Friday, March 1, 08:30–10:00, Room X

Joint Session of the ESR and ESTRO (European Society for Radiotherapy and Oncology)

Current status and future challenges in MR-integrated radiotherapy

» Chairpersons' introduction

L.E. Derchi; Genoa/IT
U. Ricardi; Turin/IT

» Clinical status of MR-integrated photon therapy

L. Boldrini; Rome/IT

» Integration of MR and particle therapy: how far are we

A. Hoffmann; Maastricht/NL

» MR-based functional imaging

R.G.H. Beets-Tan; Amsterdam/NL

» Adaptive workflow: current status and challenges

S. Kharuzhyk; Minsk/BY

» Panel discussion: We need more integration than originally thought: how to get there?



Prof. Regina Beets-Tan will speak about MR-based functional imaging in today's ESR/ESTRO session.



ESR President Prof. Lorenzo Derchi will co-chair today's joint session on MR-integrated radiotherapy.