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Role of Specific Cancer Treatments in Pain Management

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Commentary

Cancer is characterized by tissue invasion leading to destruction, inflammation, irritation, obstructions and compressions. All these causes of pain may be present in varying degrees in all stages. The pain management therefore depends on the management of cancer and vice versa.

The tissue destruction is the rule in cancers of solid organs and bones, in primitive or metastatic circumstances. Liver cancers reach large dimensions, cause destruction, necrosis, inflammation, bleeding and compression. Pain is typically multifactorial. The management of this pain uses different levels of treatment from paracetamol to morphine derivatives and morphine [1]. Specific treatments involved in the control of pain indirectly during disease control or directly in the control of mainly secondary lesions. This is the case of radiotherapy for brain metastases. The diagnosis of metastasis is made by CT or MRI front of cranial hypertension syndrome. The effects of radiation are tumoricidal, anti-inflammatory, decongestant, but also for consolidation and neurological decompression. Its analgesic efficacy is very important. The use of an intrathecal pump-delivered infusion in selected patients should be a complementary option [2].

Bone tumors, secondary more often than primary, indicative of cancers because of the pain offer a wider choice of treatment. Even if at this stage healing is impossible. The treatment is based on non-specific tools such as analgesics, bisphosphonates, cementoplasty and physiotherapy but also specific tools such as radiotherapy. Zoledronic acid and denosumab remain a safe and efficient choice in aggressive non metastatic post-menopausal breast cancer patients and for bone metastatic patients [3]. Radiotherapy plays a fundamental role with remarkable analgesic efficacy in pain associated with bone metastasis in general and in particular in spinal metastases for 30 to 80% of patients [4]. In this field new therapeutic findings as Strontium-89 are very promising in pain control particularly in resistant specific treatment such as castration in prostate cancer [5].

Inflammatory cancer is a common condition. Cancer has the ability to induce inflammation by genetic way, infection and tumor progression. Inflammatory breast cancer and obstructive or ulcerative cancers are good illustrations. Chemotherapy, hormone therapy or targeted therapies are at the forefront of the treatment of pain. Surgery by lifting obstacles and removing lesions plays an indirect role [6].

Pain can be specific to the organ due to its structure, operation, anatomical position and innervation [7]. Pain evokes the diagnosis. Pancreatic cancer is a particular example. The solar type of pain is typical. The treatment for this pain is difficult. Opioids are ineffective and surgery is limited by the late discovery of the tumor, the anatomic position and depth of the organ. Chemotherapy and chemo radiation therapy are not effective [8]. Surgical and CT guided block by alcohol appliance or splanchnic neurotomy in the case of pancreatic cancer and neurotomy and neurostimulation in other cases often remains last resorts [9].

Specific cancer treatments such as surgery, radiation therapy and medical treatments offer considerable benefits in the treatment of cancer pain. Depending on the type of cancer the combination with analgesics is done differently and at different levels. Their action is essential in the range of therapeutic choices.

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