REVIEW Libri Oncol., Vol. 41 (2013), No 1-3, 93 – 98

PALLIATIVE CARE OF PATIENTS WITH COLORECTAL CANCER

KATIJA ĆULAV, STANKA MISIR ŠITUM and LJILJA ŠTEFANČIĆ

Department of Anesthesiology, Reanimatology and Intensive care, University Hospital for Tumors, University Hospital Center Sestre milosrdnice, Zagreb, Croatia

Summary

Metastatic colorectal cancer has a poor prognosis, several treatment options are available to deal with various complications that may appear in those patients. Palliative care focuses on improving the quality of patients' lives by solving problems caused by disease progression including addressing the physical complications and symptoms it causes, pain relief, psychological support to patients and their families and caregivers. It is carried out by a multidisciplinary team that includes physicians, pharmacists, nurses, chaplains, social workers, psychologists, etc. Many equate palliative care to hospice, although they overlap in one part they should be distinguished. Palliative medicine is appropriate for patients in all disease stages, it can be provided along with curative treatment, as well as patients who are near the end of life. Hospice care provides palliative care for people who are close to the end of life, not intending to speed up or prolong the dying process. Focus is instead on relieving pain and other symptoms.

KEY WORDS: *colorectal cancer, rectal cancer, palliative care guidelines, pain management, palliative care, end of life care, hospice.*

PALIJATIVNA NJEGA KOD PACIJENATA SA KOLOREKTALNIM KARCINOMOM

Sažetak

Metastatski rak debelog crijeva ima lošu prognozu , nekoliko mogućnosti liječenja je na raspolaganju za rješavanje raznih komplikacija koje se mogu pojaviti kod takvih bolesnika. Palijativna skrb fokusira se na poboljšanje kvalitete života pacijenata rješavanjem problema uzrokovanih progresijom bolesti, uključujući rješavanje fizičkih komplikacija i simptoma koje uzrokuje, olakšavanje boli, pružanje psihološke podrške za bolesnike i njihove obitelji i skrbnike. Palijativnu njegu provodi multidisciplinarni tim koji uključuje liječnike, ljekarnike, medicinske sestre, socijalne radnike, psihologe, svećenike itd. Mnogi poistovjećuju palijativnu skrb i hospicij, iako se preklapaju u jednom dijelu treba ih razlikovati. Palijativno liječenje je prikladno za bolesnike u svim fazama bolesti, može se provoditi istovremeno s kurativnim liječenjem, kao i za pacijente koji su blizu kraja života. Hospicij pruža palijativnu skrb bolesnicima koji su blizu kraja života, bez namjere da ubrza ili produži proces umiranja. Fokus je na ublažavanju boli i drugih simptoma.

KLJUČNE RIJEČI: *kolorektalni karcinom, rektalni karcinom, smijernice palijativne njege, terapija boli, palijativna njega, hospicij.*

INTRODUCTION

Colorectal cancer was the third most common cancer with nearly 1.4 million new cases in 2012 worldwide (1). Primarily a disease occurring in developed countries in western culture, the incidence of colorectal cancer may be stabilizing in some parts of the world, however, in others, such as Japan, it is rapidly increasing (2) - this is likely to be associated with the 'westernisation' of the Japanese diet (3). It is strongly linked to advancing age- 86% of cases arise in people aged 60 years or more, incidence has been rising whilst the death rates have continued to fall, leading to better sur-

vival. This trend is expected to continue over the next years as a result of numerous factors, including the ageing population, earlier detection of cancer and continued improvements in treatment (4). Consequently the need for quality palliative care is growing. In our country palliative care is still a developing specialty, this situation requires all members of the multidisciplinary team that conducts palliative care to educate themself in this field.

METHODS

For the purposes of this article, we searched the electronic database of articles related to the topic ended with the 2013th. We searched the PubMed and Cochrane database, looking for additional recent data we included search of major websites and guidelines for palliative care. The keywords and keywords combination used in this search included: colorectal cancer, rectal cancer, palliative care guidelines, pain management, palliative care, end of life care, hospice.

STAGING OF COLORECTAL CANCER

The two systems are used to classify tumors by degree of tumor penetration through the bowel wall, subsequent nodal involvement and presence of distant metastases:

- the tumor, node, metastasis (TNM) clinical classification
- Dukes classification.

The prognosis is related to the stage of tumor. Colorectal cancer is a highly treatable and often curable disease when localized to the bowel, while metastatic colorectal cancer has a poor prognosis.

TREATMENT OPTIONS

- Curative treatment - is any medical treatment that is given to cure disease or to try to prolong life.
- Palliative treatment - helps to provide relief from pain and any other symptoms.

Surgery is the primary form of treatment in patients that have resectable disease. Concerning the rectal cancer in general that is 70%- 80% presenting patients and they are treated curatively.

Table 1.

TUMOUR-NODES-METASTASES STAGING FOR COLORECTAL CANCER

Primary tumour	
TX	Primary tumour cannot be assessed
TO	No evidence of primary tumour
TIs	Carcinoma *in situ* (intraepithelial or invasion of lamina propria)
T1	Tumour invades submucosa
T2	Tumour invades muscularis propria
T3	Tumour invades through the muscularis propria into the subserosa, or into non-peritonealized pericolic or perirectal tissues
T4	Tumour directly invades other organs or structures and/or perforates visceral peritoneum
Regional lymph nodes	
NX	Regional lymph nodes cannot be assessed
NO	No regional lymph nodes
N1	Metastases in 1-3 regional lymph nodes
N2	Metastases in 4 or more regional lymph nodes
uNO	No metastatic perirectal nodes
uN1	Metastatic perirectal nodes
Distant metastases	
MX	Distant metastases cannot be assessed
MO	No distant metastases
M1	Distant metastases

Adapted from: American Joint Committee on Cancer (AJCC, 1997): Taylor et al (2002)

Table 2.

DUKES' STAGING SYSTEM FOR BOWEL (COLORECTAL) CANCER

Dukes' stage
Dukes' A - confined to the bowel wall
Dukes' B - involving full thickness of bowel wall to serosa
Dukes' C - involvement of mesenteric nodes
Dukes' D - distant metastatic spread usually to the liver

Source: Dukes (1947): Taylor et al (2002)

Recurrence following surgery is a major problem and is often the ultimate cause of death, nearly 40% develop recurrence, with the majority not being candidates for re-treatment with curative intent (8,9). These patients need palliative care in the whole of its spectrum.

Estimated new cases and deaths from colon and rectal cancer in USA in 2013 (10):

- new cases: 1650 (colon cancer); 1174 (rectal cancer)
- deaths: 2136 (colon and rectal cancers combined)

Palliative treatment implies more options of surgical and nonsurgical treatment.

For further reading see - *Additional educational resources*.

Chemotherapy is used to reduce the probability of metastasis, shrink tumor size or slow tumour growth. If it is used before surgery then it is called neoadjuvant. It can be used after surgery - adjuvant, or as the primary therapy-palliative. Common side-effects of chemotherapeutic drugs include: sore mouth (mucositis), nausea and vomiting, diarrhoea, hair thinning and neutropenia. Some side-effects are specifically bound to certain drugs, for example numbness or tingling in the hands or feet (peripheral neuropathy) with oxaliplatin.

Radiotherapy is used to treat rectal cancer, primarily to reduce the incidence of local recurrence, it can be given over a week - short course or over five weeks - long cours. Radiotherapy is mainly given before surgery, but it can also be given afterwards, alone or in combination with chemotherapy. It is also used as palliative treatment for pain relief.

The side-effects of radiotherapy include sore skin, altered bowel and bladder function, impaired sexual function and fatigue.

Technological advances in radiation, when used in combination with new cytotoxic drugs, offer hope to patients with unresectable rectal cancer (11). These tumors can be ’downstaged’ by such treatments and in up to 80% of cases may become resectable (12).

Additional educational resources:

1. Farin Amersi, Michael J. Stamos, Clifford Y. Ko,Palliative care for colorectal cancer,Surg Oncol Clin N Am 2004;13:467-477.
2. Glimelius B.,Palliative treatment of patients with colorectal cancer, Review, Scandinavian Journal of Surgery 2003;92:74-83.

PALLIATIVE CARE AND END OF LIFE CARE

By definition of WHO palliative care improves the quality of life of patients and families who face life-threatening illness by providing pain and symptom relief, spiritual and psychosocial support to from diagnosis to the end of life and bereavement.

The interdisciplinary palliative team assesses and manages pain and/or other physical symptoms and their subsequent effects based upon the available evidence. Symptoms include, but are not limited to: pain, shortness of breath, nausea, fatigue, anorexia, insomnia, restlessness, confusion and constipation. Treatment plans for physical symptoms are developed in the context of the disease, prognosis and patient functional limitations. Physical comfort represents a core feature of compassionate care. Expert pain and symptom management sets the foundation of palliative care and

Main presenting symptoms of patients with palliative surgery for colorectal cancer (18)

	n
Rectal bleeding	44
Change in bowel habit	27
Anaemia	21
Abdominal mass	17
Abdominal pain	11
Peritonitis	9
Intestinal obstruction	41
Others	10
Total	180

Reproduced with kind permission from Springer Science and Business Media.

Table 3.

IMPORTANT ASPECTS OF PALLIATIVE CARE

- Palliative care services provide essential support to patients with colorectal cancer
- There is an emphasis on symptom control, psychological and social support
- Palliative care may be provided in many different venues: patient’s home, hospital, hospice, residential or nursing home
- It is often provided by a wide variety of healthcare professionals
- Palliative care can help to provide relief from pain and other symptoms
- Integration of psychological and spiritual care may be of benefit to the patient
- Palliative care supports and enables patients to live as actively as possible until death
- Palliative care supports the family or carer through the patient’s illness and after death

Source: Corcoran (1991): Nolan et al (2003)

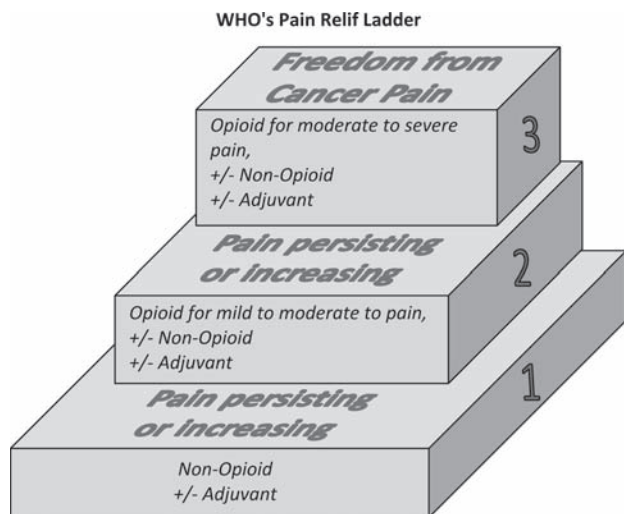
promotes psychological, social and spiritual quality of life (15,16).

Metastatic or locally advanced disease often leads to symptoms such as abdominal and pelvic pain, muscle wasting, abdominal mass and distention, Sister Mary Joseph nodules, Blummer's shelf, and jaundice. Intestinal obstruction was the most prevalent initial presentation in 180 patients with incurable stage IV colorectal cancer (18, 25), Table 3.

Hospice care provides palliative care for people who are close to the end of life. Hospice services are not intended to speed up or prolong the dying process. They focus instead on relieving pain and other symptoms.

A FEW WORDS CONCERNING PAIN MANAGEMENT

WHO has developed a three-step 'ladder' for cancer pain relief in adults. If pain occurs, there should be prompt oral administration of drugs in the following order: non-opioids (aspirin and paracetamol); then, as necessary, mild opioids (codeine); then strong opioids such as morphine, until the patient is free of pain. To calm fears and anxiety, additional drugs – 'adjuvants' – should be used.



To maintain freedom from pain, drugs should be given 'by the clock', that is every 3-6 hours, rather than 'on demand'. This three-step approach of administering the right drug in the right dose at the right time is inexpensive and 80 - 90% effective. Surgical intervention on appropriate nerves may provide further pain relief if drugs are not that effective (17).

PALLIATIVE CARE IN CROATIA

Croatia is a country without an organized palliative care service at the national level. Although the need for help to terminally ill is well established across Europe and palliative care is provided through various services in many different countries in Croatia there are a few organizations and centers providing help to terminally ill people in an uncoordinated way in certain localizations. There are palliative care providers in Zagreb, Pula, Rijeka, Koprivnica, Vukovar and Čakovec but this covers only a small portion of the country and provides limited help. Therefore the health system is under increasing pressure and end of life care for the whole population is less than satisfactory (19).

The starting point for the strategic plan for the development of palliative care in the Republic of Croatia for the period 2014 -2016 is the National Strategy for Development of Health 2012 - 2020. It has been prepared according to the 'White Paper on standards and norms for hospice and palliative care in Europe'- the recommendations of the European Association for Palliative Care. The plan seemed to cover all aspects of palliative care, its implementation is the next step in the process. To illustrate, according to the recommendations of the White Paper the demand for home palliative care teams is described as 10 services per million inhabitants. Translated to the needs of the city of Zagreb- in 2011 the total population was 792,875 and it probably did not decrease - according to the recommendations that would be at least eight teams. Currently only one team operates the Zagreb area. Furthermore, the core team of home palliative care team should be accessible 24h per day and should consist of 4 - 5 full time professionals, comprising physicians and nurses with specialist training, a social worker and administrative staff. Our reality is one palliative nurse on the field, insufficiently equipped in everything except goodwill, accompanying family doctor. According to professor Anica Jušić - one of the founders of palliative care in Croatia - we are now in a

fourth period of development of palliative care in Croatia. While first two periods until the 2005 were periods of great hopes and initial achievements of the set goals, the third period 2005 - 2008 was a period of stagnation, a 'burn-out' period.. The fourth period, 2009 onwards, recruited fresh teams and ideas and their results are expected soon (19).

Important websites for palliative care in Croatia:
http://www.palijativa.hr/
http://palijativa.ofs.hr/
http://www.mef.unizg.hr/druga.php?grupa=021109000000
http://www.hospicij-hrvatska.hr/huph_index.asp

CONCLUSION

Worldwide, the majority of cancer patients are in advanced stages of cancer when first seen by a medical professional. For them, the only realistic treatment option is pain relief and palliative care. Effective approaches to palliative care are available to improve the quality of life for cancer patients. Effective public health strategies, comprising of community and home-based care are essential to provide pain relief and palliative care for patients and their families in low-resource settings. There are great differences in availability and development of palliative care around the world. It could be argued that the level of development of palliative care in a certain country corresponds to the civilizational level. Lack of communication between medical professionals and patients, and their families, lack of education in the field of palliative care for all participants, unwillingness to unpleasant decision-making and so on have resulted in the seizure of the fundamental human right to die with dignity and to live up to the moment of death.

To summarize - palliative care:
- Provides relief from pain and other distressing symptoms
- Affirms life and regards dying as a normal process
- Intends neither to hasten nor to postpone death
- Integrates the psychological and spiritual aspects of patient care
- Offers a support system to help patients live as actively as possible until death
- Offers a support system to help the family cope during the patients illness and in their own bereavement
- Uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated
- Will enhance quality of life, and may also positively influence the course of illness
- Is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications

REFERENCES

1. World Cancer research fund international. Available from: http://www.wcrf.org/, accessed on 10.03.2014.
2. Haggar FA, Boushey RP. Colorectal cancer epidemiology: incidence, mortality, survival, and risk factors. Clinics in Colon and Rectal Surgery 2009;22(4): 191-198.
3. Marchand L. Combined influence of genetic and dietary factors on colorectal cancer incidence in Japanese Americans. Journal Of the National Cancer Institute Mongraph 1999;26:101-105.
4. Cancer Research UK. Available from: http://www.cancerresearchuk.org/, accessed on 10.03.2014.
5. AJCC. Cancer Staging Manual. , Philadelphia, PA: Lippincott- Raven; 1997.
6. Dukes C. Management of permanent colostomy. Lancet 1947;250(6462):12-14.
7. Taylor I, Garcia-Aguilar J, Goldberg S. Colorectal cancer. Oxford: Health Press; 2002 .
8. Imran Hassan. Management of stage IV rectal cancer: Palliative options. World Journal of Gastroenterology 2011;17:835-847.
9. Rothenberg DA. Palliative therapy of rectal cancer. Overview: epidemiology, indications, goals, extent, and nature of work-up. Journal of Gastrointestinal Surg 2004;8:259-261.
10. Croatian institute of public health: Cancer incidence in Croatia 2012. Available at http://hzjz.hr/wp-content/uploads/2013/11/Bilten-2012_final.pdf, accessed on 10.03. 2014.
11. Glynne - Jones R et al. The multidisciplinary management of gastrointestinal cancer, Multimodal treatment of rectal cancer. Best Practice and Research Clinical Gastroenterology 2007;21(6):1049-1070.
12. Braendengen M et al. A randomised phase III study (LARCS) comparing preoperative radiotherapy alone with chemoradiotherapy in non-resectable rectal cancer. European J Clin Oncol 2008;26:3687-3694
13. Farin Amersi, Michael J. Stamos, Clifford Y. Ko. Palliative care for colorectal cancer. Surg Oncol Clin N Am 2004;13:467-477.
14. Glimelius B. Palliative treatment of patients with colorectal cancer, Review. Scandinavian Journal of Surgery 2003;92:74-83.

15. Clinical practice guidelines for quality palliative care. National Consensus Project for Quality Palliative Care. Third edition, 2013. Available from: https://www.hpna.org/multimedia/NCP_Clinical_Practice_Guidelines_3rd_Edition.pdf accessed on 08.04.2014.
16. Palliative Care Pocket Guidelines, NHS Lothian, 2010. Available from: http://www.nhslothian.scot.nhs.uk/ourservices/palliative/, accessed on 10.03.2014.
17. WHO palliative care, pain ladder. Available from: http://www.who.int/cancer/palliative/painladder/en/, accessed on 10.03.2014.
18. Wasserberg N, Kaufman HS. Palliation of colorectal cancer. Surgical Oncology 2007;16,299-310.
19. Marđetko R. What are the views of palliative patients and their families on their needs for palliative care services in Medjimurje (county of Croatia)?, dissertation paper for the degree of Master of Science in Supportive and Palliative Care. Canterbury: University of Kent, 2011.
20. Black P. The importance of palliative care for patients with colorectal cancer. British Journal of Nursing 2004;13(10,):584-589.
21. Saltz LB. Palliative management of rectal cancer: the roles of chemotherpy and radiation therapy. J Gastrointest Surg 2004;8:274-276.
22. Stelzer S, Hellmich G, Koch R, Ludwig K. Factors predicting survival in stage IV colorectal carcinoma patients after palliative treatment: a multivariate analysis. J Surg Oncol 2005;89:211-217.
23. Taylor C. Best practice in colorectal cancer care. Nursing Times 2012;108(12):22-25.
24. Sarela AI, Guthrie JA, Seymour MT, Ride E, Guillou PJ, O Riordain DS. Non-operative management of the primary tumors in patients with incurable stage IV colorectal cancer. Br J Surg 2001;88:1352-1356.
25. Law WL, Chan WF, Lee YM, Chu KW. Non-curative surgery for colorectal cancer: critical appraisal of outcomes. International Journal of Colorectal disease 2004;19(3):197-202.

Author's address: Katija Ćulav, Department of Anesthesiology, Reanimatology and Intensive care, University Hospital for Tumors, University Hospital Center Sestre milosrdnice, Ilica 197, 10000 Zagreb, Croatia. E-mail: kculav@gmail.com