HIGHLIGHT ARTICLE

Quality Of Life in Patients with Pancreatic Cancer

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ABSTRACT

QOL is highly affected in individuals suffering from pancreatic cancer. One parameter that influences negatively QOL in these patients is cancer -cachexia syndrome. During the ASCO Annual Meeting 2014, one abstract focusing on cancer-cachexia syndrome (Abstract #15208) emphasized the fact that cachexia is under diagnosed even in patients with pancreatic cancer who constitute a high-risk group for presenting this syndrome. In addition the abstract raises concerns about the benefit of the use of dronabinol and megestrol acetate in treating the cachexia syndrome in this group of patients. Another important factor that determines QOL in pancreatic cancer patients is surgical procedures-pancreatectomies that these patients may undergo. A very interesting abstract presented also at the ASCO Annual Meeting 2014 (Abstract #15234) explores the benefit of using pasireotide perioperative in ameliorating QOL of patients who had surgical intervention.

Introduction

In the 21st century maintaining or ameliorating Quality of life (QOL) among cancer patients is equal essential as the oncological treatment per se. WHO (World Health Organization) defines QOL as individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns [1]. In other words quality of life measures the difference, or the gap, at a particular period of time between the hopes and expectations of the individual and that individual's present experiences [2].

What Did We Know Before ASCO 2014?

Patients with pancreatic cancer have the highest prevalence and are more likely to develop refractory cachexia. Pancreatic cancer cachexia is a multifactorial syndrome characterized mainly by uncompensated skeletal muscle loss (sarcopenia). Sarcopenia can coexist with loss of adipose tissue as well. As a result cachexia leads to progressive functional impairment and deterioration of QOL [3, 4].

It is well known that cannabinoids stimulate appetite and food intake. Dronabinol used to treat loss of appetite in people with AIDS and to treat severe nausea and vomiting caused by cancer chemotherapy [5].

Key words Cachexia; Pancreatic Neoplasms; pasireotide; Quality of Life
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Dronabinol stimulates appetite by interaction with endorphin receptors, interference with IL-1 synthesis, activation of cannabinoid receptors involved in the neurochemical circuit of leptin, and inhibition of prostaglandin synthesis. The main side effects of dronabinol include euphoria, hallucinations, psychosis, vertigo, and cardiovascular disorders.

Megestrol acetate (480-800 mg/day) has also be used to treat cachexia and resulted in significant improvement in appetite, food intake, and weight gain among patients with cancer cachexia, including those with pancreatic cancer. Nevertheless this improvement does not always results in amelioration of QOL. As far as thromboembolic events are concerned due to his use these appear to be less than 5% [6].

Pancreatectomies for malignant disease may influence negatively QOL. This is due to symptoms such as pain and digestive alterations. In addition to these symptoms complications such as fistula, leak, and abscess could also dramatically decrease QOL by leading to a second surgical procedure and delay initiation of chemo treatment [7]. Therefore prevention of these complications is essential in order to conserve QOL. Exocrine secretion from remained pancreatic tissue is thought to contribute to the development of fistulas and consequent complications. Somatostatin analogues have been used to reduce these secretions. Recent study has shown that the utilization of pasireotide-an orphan drug-could decrease the incident of the above complications. Pasireotide has a longer half-life as well as a broader receptor binding profile to somatostatin receptors when compared to octreotide [8, 9].

What Did We Learn at ASCO 2014?

Evaluating Outcomes of Pancreatic Cancer Patients with Cachexia

Investigators of the abstract "*Evaluating outcomes of pancreatic cancer patients with cachexia*" have pointed

out the fact that cancer cachexia is underestimated and therefore untreated even in a pancreatic cancer patients which are in high risk of presenting cachexia [10]. Only 35% of the patients were diagnosed with cachexia despite the fact that generally cachexia in this group of patients is present in about 50% of patients with the prevalence rising as high as 86 % in the last 1-2 weeks of life. Patients diagnosed with cancer cachexia received either megestrol either dronabinol .This group of patients had showed higher risk of death through disease course regardless of stage of pancreatic cancer [11].

Health-Related Quality of Life (HRQoL) Following Pancreatic Resection in RCT of Pasireotide

Investigators of the abstract "*Health-related quality of life (HRQoL) following pancreatic resection in RCT of pasireotide*" study the potential effectiveness of pasireotide in reducing postoperative pancreatic surgery complications. Patients enrolled in a prospective, randomized, double blind, placebo controlled trial and completed questionnaires of QOL at baseline, 14 days and 60 days after the surgical procedure. Patients receive perioperative pasireotide or placebo. Pancreatic resection was followed by a short term decline in QOL, especially after 14 days-mainly due to pain and digestive disturbances- and in a lower level at 60 days. Nevertheless QOL even at 60 days after surgical intervention remained affected and did not reach the baseline QOL.As far as post-operative fistula is concerned occurred in only 15% of the patients. Patients who presented this complication not only experienced a constant negative effect on body image but also had additional somatic symptoms such as limb weakness, treatment side effects and functional inadequacy. In those individuals QOL was worse at 14 and 60 days after the initial procedure comparing to those individuals that did not had this complication [12].

Discussion

First abstract about cancer cachexia in pancreatic cancer patients points out the fact that cachexia remains an important unmet need and physicians under diagnose this syndrome. Although megestrol acetate and dronabinol are approved by the U.S. Food and Drug Administration (FDA) for the treatment of HIV wasting their effectiveness in treating cancer-related cachexia is controversial. By definition cancer cachexia is a multifactorial syndrome and therefore it would be unlikely to be successfully addressed by a single pharmaceutical agent. Furthermore the fact that megestrol and dronabinol were taken by patients diagnosed with cachexia which represent only 35% of all studied pancreatic cancer patients raise suspicion that these patients had already advanced cancer cachexia. Advanced cancer cachexia is an independent predictor of immobility and mortality and probably this fact explains why the patients receiving megestrol or dronabinol had worst outcomes.

This paper nevertheless confirms the need for further evaluation of the benefit of using these drugs in pancreatic cancer patients that represent a special subgroup of cancer patients. Other group of cancer patients maybe will benefit from the use of the specific pharmaceutical agents studied. In addition this paper -in accordance to earlier studies concerning all cancer types- once again stresses the need for early detection of cancer cachexia [7, 8].

Second abstract investigate the potential benefit of the use of pasireotide in order to maintain QOL and minimize complications after pancreatectomies. It seems that pasireotide is a promising agent in reducing common complications which require hospitalization after pancreatectomies. Further hospitalization affects strongly in a negative way QOL of the patents and their caregivers.

As a consequence avoiding hospitalizations due to side effects of the treatment is of crucial importance. This study also points out the fact that pancreatectomies - even without post-operative complications- influence notably QOL of cancer patients at least for the first 14 days. It is possible that better pain control and the use of pasireotide provide a better QOL during this period.

Conflict of Interest

The authors have no potential conflicts of interest.

References

1. www. who. int/mental_health/media/68. pdf
2. Callman KC. Quality of life in cancer patients. J Med Ethics. 1984; 10: 124-127. [PMC:1374977]
3. Fearon KC, Baracos VE. Cachexia in pancreatic cancer: new treatment options and measures of success HPB (Oxford). 2010; 12(5): 323-3244. [PMC:2951820]
4. Tan CR, Yaffee PM, Jamil LH, Lo SK, Nissen N, Pandol SJ, Tuli R, et al. Pancreatic cancer cachexia: a review of mechanisms and therapeutics. Front Physiol. 2014; 3: 85: 88. [PMID:24624094]
5. Jatoi A, Windschitl HE, Loprinzi CL, Sloan JA, Dakhil SR, Mailliard JA, Pundaleeka S, et al. Dronabinol versus megestrol acetate versus combination therapy for cancerassociated anorexia: A North Central Cancer Treatment Group study. J Clin Oncol. 2002; 20: 567-573. [PMID:11786587]
6. Loprinzi CL, Ellison NM, Schaid DJ, Krook JE, Athmann LM, Dose AM, Mailliard JA, et al. Controlled trial of megestrol acetate for the treatment of cancer anorexia and cachexia. J Natl Cancer Inst. 1990; 82(13): 1127-1132. [PMID:2193166]
7. Teunissen SCCM, Wesker W, Kruitwagen C, de Haes HCJM, Voest EE, de Graeff A. Symptom prevalence in patients with incurable cancer: a systematic review. J Pain Symptom Manag. 2007; 34(1): 94-104. [PMID:17509812]
8. Allen PJ, Gönen M, Brennan MF, Bucknor AA, Robinson LM, Pappas MM, Carlucci KE, et al. Pasireotide for Postoperative Pancreatic Fistula. N Engl J Med. 2014; 370: 2014-202.
9. Huang JJ, Yeo CJ, Sohn TA, Lillemoe KD, Sauter PK, Coleman J, Hruban RH, et al. Quality of life and outcomes after pancreaticoduodenectomy. Ann Surg 2000; 231: 890-898. [PMC:1421079]
10. von Haehling S, Anker SD. Cachexia as a major underestimated and unmet medical need: facts and numbers. J Cachexia Sarcopenia Muscle. 2010; 1(1): 1-5. [PMID:21475699]
11. Hendifar AE, Tan CRC, Yaffee P, Osipov A, Tuli R, Jeon CY. Evaluating outcomes of pancreatic cancer patients with cachexia. J Clin Oncol 32, 2014 (suppl; abstr e15208).
12. Eaton A, Gonen M, Karanicolas PJ, D'Angelica MI, DeMatteo RP, Fong Y, Kingham TP, et al. Health-related quality of life (HRQoL) following pancreatic resection in RCT of pasireotide. J Clin Oncol. 32, 2014 (suppl; abstr e15234).