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The role of physiotherapy in palliative care for the relief of constipation — a case report

Abstract

Constipation is a common symptom in patients with advanced cancer and if left untreated it could greatly reduce a patient's quality of life. There are many potential causes of constipation for a patient with advanced cancer. In this article the authors present the case of an advanced cancer patient suffering from constipation whose symptoms were successfully treated with various forms of physiotherapy, such as abdominal massage, myofascial release techniques (MFR) and exercises, in addition to laxatives prescribed earlier. The authors proved that physiotherapy applied in patients being provided with palliative care is of great importance to the process of the constipation treatment.

Key words: constipation, physiotherapy, palliative care

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Introduction and scope

Constipation is one of the most common symptoms in patients receiving palliative care [1]. The European Consensus Group on Constipation in Palliative Care [2] defines constipation as the passage of small, hard faeces infrequently and with difficulty. Individuals vary in the weight they give to the different components of this definition when assessing their own constipation and may introduce other factors, such as pain and discomfort when defecating, flatulence, bloating or a sensation of incomplete evacuation [2–5]. The prevalence of constipation in palliative care patients varies from 32% to 87% depending on the patient population assessed and the definition of constipation used [2]. When assessing patients suffering from constipation and planning their treatment, one should consider its possible causes. Causal and contributing

factors to constipation in palliative care patients include both organic and functional factors (Table 1) [2, 3]. Constipation treatment basically aims at symptom relief and improving the quality of life. Non-pharmacological methods are an important part. They include a special diet and an increase in physical activity. Thus physiotherapy can be a valuable adjunctive treatment for patients suffering from constipation. Physiotherapy intervention may consist of abdominal massage on its own or in combination with exercise. However, there have not been many studies evaluating its effectiveness. [6]

In this article we present an advanced cancer patient whose constipation was successfully treated with various forms of physiotherapy, such as abdominal massage, myofascial release techniques (MFR) and exercises. In addition, this publication describes an individual physiotherapy intervention and how it benefited a patient with advanced cancer.

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Table 1. Causal and contributing factors to constipation in palliative care patients [2]

Organic factors
Pharmacological agents
Metabolic disturbances
Neurological disorders
Structural abnormalities
Functional factors
Diet
Environment
Other factors (advanced age, inactivity, decreased mobility, being confined to bed, depression, sedation)

Case report

An 80-year-old woman was admitted to the Palliative Care Unit from the Neurology Department in July 2008. In 2007 the patient had been diagnosed with advanced breast cancer and had not qualified for curative treatment. She was transferred to the Palliative Care Unit in poor general condition, suffering from metastatic bone and musculoskeletal pain. The symptoms were successfully treated with subcutaneous morphine (up to 280 mg/24 h) and transdermal fentanyl (50 µg/h) and 90 mg pamidronate *i.v.* every 4 weeks. Unfortunately, the patient also suffered from severe constipation. She complained of abdominal pain and flatulence. Her abdominal integuments were tense and defecation was painful. Within the constipation treatment both laxative therapy and physiotherapy were used. The main goals of physiotherapy were to increase physical activity, decrease the tenseness of the abdominal integuments and stimulate peristaltic movement. To achieve these goals, abdominal massage, MFR and exercises were performed. Any contraindications (Table 2) [4, 7] were excluded before the abdominal massage programme started. The procedure included abdominal effleurage, petrissage, kneading, vibration and tapotement. These techniques were used to reduce muscle tension, improve local circulation, soothe indigestion, stimulate the secretion of stomach acid, increase the appetite and stimulate peristaltic movement [8]. The procedure took fifteen minutes a day during the patient's stay in the palliative care setting. Another element of the physiotherapy involved using myofascial release techniques on the abdomen. These techniques included special grips to stretch the fascia and release bonds between fascia, integument and muscles [9]. The last part of the daily physiotherapy treatment plan involved active exercises and chest physical

Table 2. Contraindications for referral for abdominal massage [4, 7]

Patients with known or suspected abdominal obstruction
Patients who were receiving radiotherapy to their abdomen or had received radiotherapy to their abdomen in the six week before
Patients who have had recent abdominal surgery
Patients with inflammatory disease of the intestine
Patients with spastic colon with irritable bowel syndrome
Pregnancy

therapy. This part of the therapy aimed at increasing mobility and training muscles, as abdominal muscles and pelvic floor muscles can actively help to initiate defecation.

After five days of the physiotherapy programme the tenseness in the abdominal integuments had significantly decreased and the pain in the abdomen was considerably reduced. The patient was very satisfied with the effects of the physiotherapy intervention. During the following days the therapy was continued. The frequency of defecation was greater and it was less painful. This was of the greatest importance for the patient. The patient's daughter was involved in the therapy and instructed on how to perform simple forms of abdominal massage and some exercises. Physiotherapy treatment was carried out with positive effects until the patient's death four months after her admission to the Palliative Care Unit.

Discussion

Constipation in patients with advanced cancer significantly decreases their quality of life. It usually causes great discomfort. The effectiveness of physiotherapy treatment for relief of constipation has been confirmed by a small number of studies. A systematic review of several controlled trials suggests that none of these trials was free from methodological flaws and acknowledged that abdominal massage is a promising but unproven treatment option for chronic constipation and that further investigations are needed [10]. Lämas et al. [11] assessed the effects of abdominal massage in constipation management in a randomized controlled trial. A sample of 60 people with constipation was included and randomized in two groups. The intervention group received abdominal massage in addition to laxatives prescribed earlier and the control group received only laxatives according to earlier prescriptions. Abdominal massage significantly decreased

the severity of the constipation syndrome, abdominal pain syndrome and gastrointestinal symptoms, according to the total score assessed through the Gastrointestinal Symptoms Rating Scale (GSRS). The intervention group also had a significant increase in bowel movements compared to the control group. There was no significant difference in the change of the amount of laxative intake after eight weeks. The study described above did not concern advanced cancer patients. In this group of patients constipation causes are complex (Table 1).

This case report describes a patient with advanced cancer suffering from constipation whose symptoms were successfully treated with various forms of physiotherapy, such as abdominal massage, MFR and exercises, added to laxatives prescribed earlier. The treatment significantly improved the patient's quality of life by reducing constipation and its arduous symptoms. Myofascial release techniques used on the abdomen decreased muscle tone. As fascia covers all organs of the body, fascial release reduces tightness and restrictions and can affect other body organs through reflexive relaxation [9]. Abdominal massage stimulated peristaltic movements. In addition, the exercises were the source of increasing mobility. It is worth mentioning that all the methods were well tolerated by the patient. The fact that the patient's daughter took part in the treatment was also vital to the effects. Thanks to her involvement the abdominal massage was able to be performed twice daily.

Physiotherapy treatment does not always measurably reduce the intensity of symptoms. It often changes a patient's perception of constipation by decreasing their level of discomfort.

It should be emphasized that physiotherapy in patients with constipation constitutes one element of the whole treatment. It can help re-establish comfortable bowel habits and relieve the pain and discomfort caused by constipation as well as improve the patient's sense of well-being.

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