

MASSAGE AND CANCER: PRACTICE GUIDELINES

STEPHEN JOHN WALTERS

Abstract

Massage is a commonly sought therapy by patients with cancer. Recent research indicates that massage is a valid application for cancer pain, anxiety, nausea and vomiting, lymphedema, and carer support. However, complications such as coagulation disorders, metastasis to bone, open wounds, and dermatitis require medical management. The evidence supports that massage therapists can offer treatment for patients with cancer with confidence.

Reference

Walters SJ. Massage and cancer: practice guidelines. *Journal of the Australian Traditional-Medicine Society* 2010;16(3):141–143.

Keywords

Massage; Cancer; Guidelines; Evidence-based medicine; Complementary medicine.

Aim

The purpose of this article is to examine the use of massage in cancer through recently published evidence. This article also aims to develop an awareness of the contraindications when applying massage to cancer patients.

Introduction

The use of massage treatment by patients with cancer is common. A survey published in 2008 of 367 Australian women with breast cancer revealed 87.5% used complementary medicine, and of these, 41.4% used massage⁽¹⁾. In Canada, 80% of women with breast cancer used complementary medicine including massage⁽²⁾. A survey in the USA of 189 women with lung cancer showed 44% used complementary or alternative medicine and 6.9% used massage to control symptoms—particularly difficulty with breathing and pain.

It is important for therapists to understand the evidence validating the application of massage for cancer. This article is based on recent research data and intends to guide massage therapists towards appropriate treatment plans that incorporate an awareness of contraindications.

Method And Results

The data was obtained by performing a Medline search using the words ‘massage’ and ‘cancer’ but not ‘prostatic’. The search included only papers published in the past five years. From the articles retrieved, titles and abstracts were read and irrelevant or insignificant papers were excluded at this author’s discretion. A total of 87 articles were considered and information was either extracted from the abstracts or from the retrieved papers.

Stephen John Walters, BHS(Hon.), ND, Dip Massage, Cert Med Tech is a naturopath with 25 years of clinical experience. He has a special interest in the application of massage in health and disease. Address: 678 Port Road, Beverley SA 5009. Telephone: (08) 8348 0099, camroc@iinet.net.au.

Discussion

The therapeutic application of massage for cancer relates to the management of pain, depression and anxiety, lymphedema, nausea and vomiting during chemotherapy, and carer support.

Pain

Pain is a common feature in the latter stages of terminal cancer. Gorman et al.⁽⁴⁾ put it succinctly: ‘Pain, or its anticipation, remains one of the most feared symptoms of the dying process.’ In a study comparing massage to simple touch, both massage and touch produced sustained improvements in cancer pain, but massage therapy was significantly more effective at improving pain than touch alone immediately after application ($P < 0.0001$)⁽⁵⁾.

In advanced cancer, bone involvement is a significant problem and, ‘...results in intolerable pain, substantial morbidity, and impaired quality of life in 34%–45% of cancer patients.’⁽⁶⁾ Massage was shown to have an effective immediate, short-term (20–30 minutes), intermediate (1–2.5 hours) and long-term (16–18 hours) benefits on the pain and anxiety associated with bone cancer⁽⁶⁾. Based on current research, it is reasonable to conclude that massage and reflexology⁽⁷⁾ are valid applications for cancer pain.

Anxiety

The most consistent symptom reduction reported for massage therapy in numerous studies is anxiety^(8,9). For example, reflexology has a powerful anxiety-reducing effect⁽¹⁰⁾ and has been shown to help cancer patients receiving chemotherapy feel better and also cope better with their disease⁽¹¹⁾.

In a study by Campeau et al., pre and post massage anxiety was measured in patients undergoing radiation therapy⁽¹²⁾. Though there was no major impact on intermediate-term anxiety in patients undergoing radiation therapy, there was a significant immediate decrease in anxiety after massage treatment.

Anxiety and depression and immunologic state was improved with aromatherapy massage in a trial with twelve breast cancer patients⁽¹³⁾. Although aromatherapy massage does not confer benefits in the long term, the immediate effects on depression and anxiety for up to two weeks were clinically significant⁽¹⁴⁾.

In a study of mothers of children with cancer, tension and anxiety levels were significantly higher than in mothers of children suffering from other types of diseases or with healthy children⁽¹⁵⁾. Because massage has a favourable effect on stressed mothers, it may serve as a useful support tool. Furthermore, massage for children with cancer appears to decrease anxiety in both parents and children⁽¹⁶⁾.

Lymphedema

Fluid accumulation due to obstruction of lymphatic vessels is termed lymphedema and manifests as swelling in the subcutaneous tissues—it is a possible development for patients with cancer. The cause of fluid accumulation can vary and therapists must make a reasonable diagnosis. Table 1 summarises the diagnostic features of fluid swelling.

Table 1. Classifications of oedema, causes, features and treatment

Condition	Cause of Condition	Distinguishing Features	Treatment Options
Primary lymphedema	Possibly inherited, not related to cancer or cancer treatments	Oedema, fibrosis, may be present bilaterally, notably in the legs	Lymphatic massage, compression garments, surgery
Secondary lymphedema	Acquired through damage or blockage of the lymphatics e.g., surgery, infection, radiation treatment, tumors within the lymphatics	Oedema, fibrosis, may be present unilaterally relative to the damaged body section, e.g., one arm post mastectomy and lymphatic resection	Lymphatic massage, compression garments
Peripheral oedema	May be caused by conditions such as heart and/or kidney failure	Fluid accumulation at the extremities, noticeably in the lower legs	Medical intervention for failed organs, massage may help manage oedema

Lymphedema in cancer is mainly associated with patients undergoing treatment of malignancy; for example, women being treated for breast cancer. The arm on the affected side may become swollen after a mastectomy, lymph node resection, and radiotherapy. Patients presenting with swelling of an extremity should be assessed and the risk factors for oedema should be identified. These risk factors include prior surgery, radiotherapy, infections, or other forms of trauma to the affected limb. It is important to differentiate lymphedema from other causes of limb swelling⁽¹⁷⁾. Knowledge of cancer and appropriate training should be considered by students aiming for a specialised niche in lymphatic drainage.

Nausea And Vomiting

Nausea and vomiting are a significant problem for people with cancer, especially patients undergoing cancer treatment. There is some evidence that massage⁽¹⁸⁻²²⁾ and acupuncture⁽²³⁻²⁷⁾ assists in managing this problem.

Practice Guidelines For Applying Massage To Cancer Patients

Massage practitioners should be able to offer assistance to patients seeking massage as a therapy for cancer. However, it would be unethical and deceptive to offer a prognosis of a cure because no evidence exists to support this claim.

Conversely, the practitioner can have confidence that massage therapy has the potential to assist with pain, nausea and vomiting, anxiety and depression, lymphedema and provide benefits for carers of patients with cancer. Practitioners should be aware that massage therapy is a complement and adjunct to other treatments. Therefore, complementary medicine should not be offered as an alternative to medical treatment.

Furthermore, Sagar, Dryden and Wong⁽²⁸⁾ have highlighted some cautions for patients with cancer:

- Coagulation disorders, complicated by bruising and internal hemorrhage due to:
 - low platelet count
 - medications: coumadin, acetylsalicylic acid, heparin
- Metastases to bone, complicated by fracture/s
- Open wounds or radiation dermatitis, complicated by pain and infection.

Does Massage Spread Cancer?

There is no evidence that massage causes or contributes to metastatic disease. However, some studies have shown that breast epithelial cells may transfer to sentinel lymph nodes as a result of massage^(29, 30). Therefore, it may be prudent to avoid applying direct pressure on a tumor location, and breast cancer should be excluded before complementary medicine treatment of any breast condition.

Conclusion

It is important that massage therapists draw evidence from the available literature and design treatment plans that set achievable therapeutic goals. This article has attempted to evaluate recently published research and reviews that considered the use of massage for cancer and to summarise this evidence in the form of practice guidelines.

The use of massage for cancer pain, anxiety, nausea and vomiting, lymphedema, and carer support represents a valid complementary therapy in the management of cancer. Massage practitioners can offer patients their support with some confidence.

References

- (1) Kremser T, Evans A, Moore A, Luxford K, Begbie S, Bensoussan A, et al. Use of complementary therapies by Australian women with breast cancer. *Breast*. 2008;17(4):387-94.
- (2) Boon HS, Olatunde F, Zick SM. Trends in complementary/alternative medicine use by breast cancer survivors: comparing survey data from 1998 and 2005. *BMC Womens Health*. 2007;7:4.

- (3) Wells M, Sarna L, Cooley ME, Brown JK, Chernecky C, Williams RD, et al. Use of complementary and alternative medicine therapies to control symptoms in women living with lung cancer. *Cancer Nurs*. 2007;30(1):45–55; quiz 6–7.
- (4) Gorman G, Forest J, Stapleton SJ, Hoenig NA, Marschke M, Durham J, et al. Massage for cancer pain: a study with university and hospice collaboration. *J Hosp Palliat Nurs*. 2008;10(4):191–7.
- (5) Kutner JS, Smith MC, Corbin L, Hemphill L, Benton K, Mellis BK, et al. Massage therapy versus simple touch to improve pain and mood in patients with advanced cancer: a randomized trial. *Ann Intern Med*. 2008;149(6):369–79.
- (6) Jane SW, Wilkie DJ, Gallucci BB, Beaton RD, Huang HY. Effects of a full-body massage on pain intensity, anxiety, and physiological relaxation in Taiwanese patients with metastatic bone pain: a pilot study. *J Pain Symptom Manage*. 2009;37(4):754–63.
- (7) Stephenson NL, Swanson M, Dalton J, Keefe FJ, Engelke M. Partner-delivered reflexology: effects on cancer pain and anxiety. *Oncol Nurs Forum*. 2007;34(1):127–32.
- (8) Myers CD, Walton T, Bratsman L, Wilson J, Small B. Massage modalities and symptoms reported by cancer patients: narrative review. *J Soc Integr Oncol*. 2008;6(1):19–28.
- (9) Cassileth BR, Deng GE, Gomez JE, Johnstone PA, Kumar N, Vickers AJ. Complementary therapies and integrative oncology in lung cancer: ACCP evidence-based clinical practice guidelines (2nd edition). *Chest*. 2007;132(3 Suppl):340S–54S.
- (10) McVicar AJ, Greenwood CR, Fewell F, D'Arcy V, Chandrasekharan S, Alldridge LC. Evaluation of anxiety, salivary cortisol and melatonin secretion following reflexology treatment: a pilot study in healthy individuals. *Complement Ther Clin Pract*. 2007;13(3):137–45.
- (11) Quattrin R, Zanini A, Buchini S, Turello D, Annunziata MA, Vidotti C, et al. Use of reflexology foot massage to reduce anxiety in hospitalized cancer patients in chemotherapy treatment: methodology and outcomes. *J Nurs Manag*. 2006;14(2):96–105.
- (12) Campeau MP, Gaboriault R, Drapeau M, Van Nguyen T, Roy I, Fortin B, et al. Impact of massage therapy on anxiety levels in patients undergoing radiation therapy: randomized controlled trial. *J Soc Integr Oncol*. 2007;5(4):133–8.
- (13) Imanishi J, Kuriyama H, Shigemori I, Watanabe S, Aihara Y, Kita M, et al. Anxiolytic effect of aromatherapy massage in patients with breast cancer. *Evid Based Complement Alternat Med*. 2009;6(1):123–8.
- (14) Wilkinson SM, Love SB, Westcombe AM, Gambles MA, Burgess CC, Cargill A, et al. Effectiveness of aromatherapy massage in the management of anxiety and depression in patients with cancer: a multicenter randomized controlled trial. *J Clin Oncol*. 2007;25(5):532–9.
- (15) Iwasaki M. Interventional study on fatigue relief in mothers caring for hospitalized children: effect of massage incorporating techniques from oriental medicine. *Kurume Med J*. 2005;52(1–2):19–27.
- (16) Post-White J, Fitzgerald M, Savik K, Hooke MC, Hannahan AB, Sencer SF. Massage therapy for children with cancer. *J Pediatr Oncol Nurs*. 2009 Jan-Feb;26(1):16–28.
- (17) Warren AG, Brorson H, Borud LJ, Slavin SA. Lymphedema: a comprehensive review. *Ann Plast Surg*. 2007;59(4):464–72.
- (18) Billhult A, Bergbom I, Stener-Victorin E. Massage relieves nausea in women with breast cancer who are undergoing chemotherapy. *J Altern Complement Med*. 2007;13(1):53–7.
- (19) Cassileth BR, Vickers AJ. Massage therapy for symptom control: outcome study at a major cancer center. *J Pain Symptom Manage*. 2004;28(3):244–9.
- (20) Mehling WE, Jacobs B, Acree M, Wilson L, Bostrom A, West J, et al. Symptom management with massage and acupuncture in post-operative cancer patients: a randomized controlled trial. *J Pain Symptom Manage*. 2007;33(3):258–66.
- (21) Russell NC, Sumler SS, Beinhorn CM, Frenkel MA. Role of massage therapy in cancer care. *J Altern Complement Med*. 2008;14(2):209–14.
- (22) Wilkinson S, Barnes K, Storey L. Massage for symptom relief in patients with cancer: systematic review. *J Adv Nurs*. 2008;63(5):430–9.
- (23) Dibble SL, Luce J, Cooper BA, Israel J, Cohen M, Nussey B, et al. Acupressure for chemotherapy-induced nausea and vomiting: a randomized clinical trial. *Oncol Nurs Forum*. 2007;34(4):813–20.
- (24) Gardani G, Cerrone R, Biella C, Galbiati G, Proserpio E, Casiraghi M, et al. A progress study of 100 cancer patients treated by acupressure for chemotherapy-induced vomiting after failure with the pharmacological approach. *Minerva Med*. 2007;98(6):665–8.
- (25) Gardani G, Cerrone R, Biella C, Mancini L, Proserpio E, Casiraghi M, et al. Effect of acupressure on nausea and vomiting induced by chemotherapy in cancer patients. *Minerva Med*. 2006;97(5):391–4.
- (26) Klein J, Griffiths P. Acupressure for nausea and vomiting in cancer patients receiving chemotherapy. *Br J Community Nurs*. 2004;9(9):383–8.
- (27) Molassiotis A, Helin AM, Dabbour R, Hummerston S. The effects of P6 acupressure in the prophylaxis of chemotherapy-related nausea and vomiting in breast cancer patients. *Complement Ther Med*. 2007;15(1):3–12.
- (28) Sagar SM, Dryden T, Wong RK. Massage therapy for cancer patients: a reciprocal relationship between body and mind. *Curr Oncol*. 2007;14(2):45–56.
- (29) Diaz NM, Cox CE, Ebert M, Clark JD, Vrcel V, Stowell N, et al. Benign mechanical transport of breast epithelial cells to sentinel lymph nodes. *Am J Surg Pathol*. 2004;28(12):1641–5.
- (30) Diaz NM, Vrcel V, Centeno BA, Muro-Cacho C. Modes of benign mechanical transport of breast epithelial cells to axillary lymph nodes. *Adv Anat Pathol*. 2005;12(1):7–9. ♦



Australian College of Chi-Reflexology

Advanced Clinical Reflexology and Chi-Reflexology Training

Add clinical skills including balancing
the whole system through the feet in minutes!

Also, Post-Graduate (CPD/CPE) programme:

- ÷ Advanced Reflexology theory and practice, including all of the systems of the body accurately reflected in the feet and the Anatomical Reflection Theory.
- ÷ Chi-Reflexology
- ÷ Sports Reflexology & more.

Chi-Reflexology is a unique approach developed by
Moss Arnold, principal and founder of the College.

Chi-Reflexology Book, Chart and DVD also available

See www.chi-reflexology.com.au
phone 02 4754 5500