

BIODATA PENELITIAN



A. Data Pribadi

Nama : Annisa Masruro, S.Kep
Tempat, tgl lahir : Kutai, 10 Maret 1997
Alamat asal : Dusun Suka Karya RT 003 Desa Bukit Pariaman
Kecamatan Tenggarong Seberang
Alamat di Samarinda : Jl.Markisa

B. Riwayat Pendidikan

Pendidikan formal

- Tamat SD : 2009 di SDN 014 Tenggarong Seberang
- Tamat SMP : 2012 di SMPN 02 Tenggarong Seberang
- Tamat SLTA : 2015 di SMK KESEHATAN
- Setrata I : 2019 di Universitas Muhammadiyah Kalimantan Timur

	<h2>STANDAR OPERASIONAL PROSEDUR TERAPI PIJAT DENGAN LAVENDER OIL</h2>
---	--

Pengertian

Massage adalah pengurutan dan pemijatan yang menstimulasi darah serta metabolisme dalam jaringan (kusyanti,2006) . Massage adalah melakukan tekanan tangan pada jaringan lunak, biasanya otot, tendon atau ligamen tanpa menyebabkan pergerakan atau perubahan posisi sendi untuk meredakan nyeri, menghasilkan relaksasi atau memperbaiki sirkulasi.

Tujuan :

1. Melancarkan sirkulasi darah
2. Meningkatkan relaksasi dan menurunkan stress
3. Mengurangi rasa nyeri
4. Meningkatkan kualitas tidur

NO	PENJELASAN
Pengkajian	
1	Kaji kondisi kesehatan klien
2	Kaji kesiapan klien
3	Kaji kesiapan perawat
Fase pre interaksi	
5	Mencuci tangan
6	Mempersiapkan alat <ul style="list-style-type: none"> • Minyak lavender 10-15 mL • Handuk sebai pengalas

Fase Orientasi	
7	Memberi salam dan menyapa nama klien
8	Memperkenalkan diri
9	Melakukan kontrak
10	Menjelaskan Tujuan dan Prosedur pelaksanaan
11	Menanyakan kesediaan klien untuk dilakukan tindakan
12	Mendekatkan alat-alat
Fase Kerja	
13	Bantu klien dengan posisi fowler atau semifowler
14	Menyiapkan minyak lavender 10-15 mL
15	Membaca 'Basmalah' dan memulai tindakan dengan baik.
16	Jaga privasi: tutup pintu dan jendela / pasang sampiran.
18	Hangatkan minyak lavender di telapak tangan
19	Aplikasikan minyak lavender pada satu kaki
20	Pijat dimulai dari permukaan pelantar kaki menuju tumit
21	Kemudian permukaan dorsal kaki menuju pergelangan kaki
22	Lanjutkan ke sisi posterior dan anterior kaki kemudian pijat sampai lutut
23	Teknik yang sama di terapkan pada bagian kaki lainnya
24	Anjurkan pasien untuk membiarkan minyak lavender agar mengering secara spontan
Fase Terminasi	
32	Membaca hamdalah
33	Merapikan klien dan memberikan posisi yang nyaman
34	Mencuci tangan

35	Mengevaluasi respon klien
36	Memberi reinforcement positif
37	Membuat kontrak pertemuan selanjutnya
38	<p>Mengakhiri pertemuan dengan baik: bersama klien membaca doa</p> <p style="text-align: center;"> اللَّهُمَّ رَبَّ النَّاسِ أَذْهِبِ الْبَاسَ إِشْفِ أَتَّ الشَّافِي لَا شِفَاءَ إِلَّا شِفَاؤُكَ شِفَاءً لَا يُعَادِرُ سَقَمًا </p> <p>Artinya (Ya Allah. Tuhan segala manusia, hilangkan segala klienannya, angkat penyakitnya, sembuhkan lah ia, engkau maha penyembuh, tiada yang menyembuhkan selain engkau, sembuhkanlah dengan kesembuhan yang tidak meninggalkan sakit lagi) dan berpamitan dengan mengucapkan salam pada pasien.</p>

Skala Peringatan

Restless Legs Syndrome

<p>Minta pasien menilai gejalanya untuk sepuluh pertanyaan berikut.</p> <p>Pasien dan bukan pemeriksa harus membuat penilaian, tetapi pemeriksa harus ada untuk mengklarifikasi kesalahpahaman yang mungkin dimiliki pasien tentang pertanyaan. Pemeriksa harus menandai jawaban pasien di formulir.</p>	
<p>Dalam seminggu terakhir ...</p> <p>(1) Secara keseluruhan, bagaimana Anda menilai ketidaknyamanan RLS dikaki atau lengan Anda?</p> <p>(4) Sangat parah</p> <p>(3) Parah</p> <p>(2) Sedang</p> <p>(1) Ringan</p> <p>(0) Tidak ada</p>	<p>Dalam seminggu terakhir...</p> <p>(6) Seberapa parah RLS Anda secara keseluruhan?</p> <p>(4) Sangat parah</p> <p>(3) Parah</p> <p>(2) Sedang</p> <p>(1) Ringan</p> <p>(0) Tidak ada</p>
<p>Dalam seminggu terakhir ...</p> <p>(2) Secara keseluruhan, bagaimana Anda menilai kebutuhan untuk bergerak karena gejala RLS Anda</p> <p>(4) Sangat parah</p> <p>(3) Parah</p> <p>(2) Sedang</p> <p>(1) Ringan</p> <p>(0) Tidak ada</p>	<p>Dalam seminggu terakhir...</p> <p>(7) Seberapa sering Anda mengalami gejala RLS?</p> <p>(4) Sangat sering (6 hingga 7 hari dalam 1 minggu)</p> <p>(3) Sering (4 hingga 5 hari dalam 1 minggu)</p> <p>(2) Kadang-kadang (2 sampai 3 hari dalam 1 minggu)</p> <p>(1) Sesekali (1 hari dalam 1 minggu)</p> <p>(0) Tidak pernah</p>
<p>Dalam seminggu terakhir ...</p> <p>(3) Secara keseluruhan, seberapa lega ketidaknyamanan lengan atau tungkai RLS yang Anda peroleh karena bergerak?</p> <p>(4) Tidak adabantuan</p> <p>(3) Reliefringan</p> <p>(2) Relief sedang</p> <p>(1) Kelegaian lengkap atau hampir seluruhnya</p> <p>(0) Tidak ada gejala RLS yang harus</p>	<p>Dalam seminggu terakhir...</p> <p>(8) Ketika Anda mengalami gejala RLS, seberapa parah rata-rata gejala tersebut?</p> <p>(4) Sangat parah (8 jam atau lebih per 24 jam)</p> <p>(3) Parah (3 hingga 8 jam per 24 jam)</p> <p>(2) Sedang (1 hingga 3 jam per 24 jam)</p> <p>(1) Ringan (kurang dari 1 jam per 24 jam)</p>

disembuhkan	(0) Tidak ada
<p>Dalam seminggu terakhir ... (4) Seberapa parah gangguan tidur Anda karena gejala RLS Anda?</p> <p>(4) Sangat parah (3) Parah (2) Sedang (1) Ringan (0) Tidak ada</p>	<p>Dalam seminggu terakhir... (9) Secara keseluruhan, seberapa parah dampak gejala RLS Anda terhadap kemampuan Anda dalam menjalankan urusan sehari-hari, misalnya menjalani kehidupan berkeluarga, rumah, sosial, sekolah atau pekerjaan yang memuaskan?</p> <p>(4) Sangat parah (3) Parah (2) Sedang (1) Ringan (0) Tidak ada</p>
<p>Dalam seminggu terakhir ... (5) Seberapa parah kelelahan atau <u>kantuk</u> Anda <u>pada siang hari karena gejala RLS</u> Anda ?</p> <p>(4) Sangat parah (3) Parah (2) Sedang (1) Ringan (0) Tidak ada</p>	<p>Dalam seminggu terakhir... (10) Seberapa parah gangguan mood Anda karena gejala RLS Anda –misalnya marah, tertekan, sedih, cemas atau mudah tersinggung?</p> <p>(4) Sangat parah (3) Parah (2) Sedang (1) Ringan (0) Tidak ada</p>
Jumlah skor =	
Kriteria penilaian adalah: Ringan (skor 1-10); Sedang (skor 11-20); Parah (skor 21-30); Sangat parah (skor 31-40)	
<p>1. Jawaban untuk IRLS ini diberi skor dari 4 untuk jawaban pertama (teratas) (biasanya 'sangat parah') hingga 0 untuk jawaban terakhir (biasanya tidak ada). Semua item diberi skor. Jumlah skor item berfungsi sebagai skor skala.</p> <p>Kelompok Studi Sindrom Kaki Gelisah Internasional memegang hak cipta untuk skala ini.</p>	



Contents lists available at ScienceDirect

Journal of Bodywork & Movement Therapies

journal homepage: www.elsevier.com/jbmt

Original Research

Effects of glycerin oil and lavender oil massages on hemodialysis patients' restless legs syndrome

Neda Mirbagher Ajorpaz^a, Zahra Rahemi^b, Mohammad Aghajani^{c,*}, Sayyed Hossein Hashemi^d^a Autoimmune Diseases Research Center, Department of Nursing and Midwifery, Kashan University of Medical Sciences, Kashan, Iran^b Chiroson University School of Nursing, SC, USA^c Infectious Diseases Research Center, Kashan University of Medical Sciences, Kashan, Iran^d Kashan University of Medical Sciences, Trauma Nursing Research Center, Kashan University of Medical Sciences, Kashan, Iran

ARTICLE INFO

Article history:

Received 12 June 2019

Accepted 26 June 2019

Keywords:

Restless legs syndrome

Massage

Glycerin oil

Lavender oil

Hemodialysis

ABSTRACT

Objectives: To determine the effects of glycerin oil and lavender oil massages on hemodialysis patients' restless legs syndrome (RLS).**Methods:** Ninety hemodialysis patients with RLS were randomly allocated into two intervention groups and one control group, each consisting of 35 participants. The control group received routine care, and the intervention groups received effleurage massage with lavender and glycerin oil in addition to routine care for one month. RLS intensity was measured among the three groups using the Restless Legs Syndrome Rating Scale.**Results:** At the beginning of the study, the results showed no significant difference among the three groups' scores. At the end of the study, the mean RLS scores were significantly lower in the intervention groups compared to the control group ($F = 63.4, p \leq 0.001$). This difference was not significant between the two intervention groups; nonetheless, the differences between the control and lavender oil groups, as well as the control and glycerin oil groups, were significant ($p < 0.05$).**Conclusion:** The findings showed the effectiveness of the oils through the effleurage massage for reducing RLS in a sample of hemodialysis patients.

© 2019 Elsevier Ltd. All rights reserved.

1. Introduction

The global prevalence of chronic renal failure (CRF) is significantly elevated. Reports indicate a 10% worldwide rate for this disease (Chen et al., 2019). CRF patients often experience a variety of health challenges that require adherence to several therapeutic and medical interventions, including medication and hemodialysis (HD) (Rahimimoghadam et al., 2017). In CRF patients, HD is a frequent and effective intervention; however, this treatment may lead to multiple adverse complications, such as pain in the fistula, sleep disturbances, psychological disturbances, and restless legs syndrome (RLS) (Rahimimoghadam et al., 2019; Garcia-Borreguero, 2012; Einollahi and Izadianmehr, 2014; Novak et al., 2015).

RLS or Willis-Ekbom disease is a neurologic syndrome that

manifests with sensorimotor symptoms, including atypical unpleasant sensations, such as paresthesia and uncontrolled movements in the lower extremities (Garcia-Borreguero, 2012). The symptoms mostly appear or deteriorate at the time of rest or inactivity, and inversely, may completely or partially subside through activity (Allen et al., 2003; Einollahi and Izadianmehr, 2014). Since dialysis sessions often take about four hours, RLS may be exacerbated during dialysis; therefore, this syndrome is one of frequent adverse effects of HD (Fonseca et al., 2016), and its prevalence is reported to reach 60% in HD patients (Giannaki et al., 2014; Tilma et al., 2014; Novak et al., 2015). Other undesirable effects of RLS include sleep disturbances, daytime fatigue, impaired ability to perform activities, social isolation, anxiety, depression, decreased quality of life, and poor general health (Garcia-Borreguero, 2012; Mortazavi et al., 2013; Novak et al., 2015).

The undesirable effects of chronic diseases and their treatments necessitate the development of innovative and unconventional medical interventions to help patients cope with their conditions

* Corresponding author. Infectious Diseases Research Center, Kashan University of Medical Sciences, Kashan, Iran.

E-mail address: Aghajani_m@kums.ac.ir (M. Aghajani).

<https://doi.org/10.1016/j.jbmt.2019.06.012>

1360-8592/© 2019 Elsevier Ltd. All rights reserved.

Please cite this article as: Mirbagher Ajorpaz, N et al., Effects of glycerin oil and lavender oil massages on hemodialysis patients' restless legs syndrome, Journal of Bodywork & Movement Therapies, <https://doi.org/10.1016/j.jbmt.2019.06.012>

The Effect of Massage With Lavender Oil on Restless Leg Syndrome in Hemodialysis Patients: A Randomized Controlled Trial

Sayyed Hossein Hashemi,¹ Ali Hajbagheri,² and Mohammad Aghajani^{3*}

¹Department of Nursing, Qom University of Medical Sciences, Qom, IR Iran

²Trauma Nursing Research Center, Faculty of Nursing and Midwifery, Kashan University of Medical Sciences, Kashan, IR Iran

³Department of Psychiatric Nursing, Kashan University of Medical Sciences, Kashan, IR Iran

*Corresponding author: Mohammad Aghajani, Department of Psychiatric Nursing, Kashan University of Medical Sciences, Kashan, IR Iran. Tel: +98-365520021, Fax: +98-365520633, E-mail: aghajani1362@yahoo.com

Received 2015 May 5; Revised 2015 June 27; Accepted 2015 July 2.

Abstract

Background: Restless leg syndrome (RLS) is a common problem in patients with chronic renal failure. It can reduce the quality of life and sleep disturbances. This disorder is usually treated pharmacologically. Recently, complementary medicine methods have been suggested because of chemical drugs adverse effects. There is not enough evidence about the effect of aromatherapy on RLS.

Objectives: The aim of this study was to determine the effects of massage with lavender oil on RLS symptoms in hemodialysis patients.

Patients and Methods: This randomized clinical trial study included 70 hemodialysis patients with RLS that were randomly assigned into two groups in 2014. The experimental group received effleurage massage using lavender oil and control group received routine care for three weeks. Data was collected with RLS questionnaire and analyzed using independent and paired t-test and Chi-square test.

Results: The mean RLS scores were not significantly different in the two groups at the start of study (22.41 ± 7.67 vs. 22.90 ± 4.38 , $P = 0.76$). At the end of study the mean RLS score significantly decreased in the intervention group, while this score remained relatively unchanged in the control group (12.41 ± 5.49 vs. 23.23 ± 4.52 , $P < 0.0001$).

Conclusions: Lavender oil massage was effective to improve RLS in hemodialysis patients. It has no adverse effects, is practical and cost-effective. It is suggested to be used along with routine treatment of RLS in hemodialysis patients.

Keywords: Massage, Lavender Oil, Restless Leg Syndrome, Hemodialysis

1. Background

Restless leg syndrome (RLS) or the Willis-Ekbom disease is a neurological disorder characterized by a compulsory need to move legs (1). Patients with this syndrome, experience an intensely uncomfortable sensation in their legs that compels them to move their legs involuntarily (2). Patients with RLS usually experience several complications including reduced quality of life (QOL) and sleep disturbances (3, 4). After mental disorders, drug abuse, and breathing-related sleep disorders, RLS is the fourth-leading cause of insomnia (5). Although RLS is not as life threatening as diabetes or cardiac disorders, it is crucial to be treated, because it results in chronic insomnia and daytime drowsiness that consequently decreases patient's QOL (6). Patients with chronic renal insufficiency who undergo hemodialysis may commonly encounter various complications including RLS, which might be experienced frequently (7). Approximately 20 - 80% of hemodialysis patients experience RLS, while its prevalence in general population is 2 to 15% (8, 9). International restless leg syndrome study group has identified four main criteria for diagnosis of RLS including: a) urge to move the legs, usually accompanied by discomfort in legs, b) start or exacerbation of symptoms at rest or after inactivity, c) complete or partial

relief of symptoms by activity, d) emergence of symptoms only at night or exacerbation of symptoms in the evening and night (10). Because the etiology of this syndrome is not completely understood, there is no definite treatment for it and current therapies can only reduce symptoms. Currently, some pharmacological and non-pharmacological treatments are used for the treatment of RLS. Dopaminergic drugs are commonly used for the treatment of RLS. However, these medications can cause serious complications (11). In a review on the pathophysiology and genetics of RLS, Trotti et al. reported that only 13% of patients with this syndrome can be treated with pharmacological treatments (12). Therefore, non-pharmacologic therapies are increasingly being used for the treatment of this syndrome (11). Complementary and alternative therapies are increasingly used by nurses in many treatment centers due to their safeness, affordability, easiness, and minimal adverse effects (13, 14). Massage therapy and aromatherapy are among the most commonly used complementary and alternative therapies (13). Massage therapy, as a well-known traditional remedy, induces a feeling of health and sense of well-being and therefore has gained popularity (15). Several studies have shown beneficial effects of massage on pain,



The effects of vibration and massage on severity of symptoms of restless leg syndrome and sleep quality in hemodialysis patients; a randomized cross-over clinical trial

Somayeh Azimpour^{1*}, Habibollah S Hosseini², Adel Eftekhari³, Majid Kazemi^{4*}

¹School of Nursing and Midwifery, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

²Nursing Department, Nursing and Midwifery School, Geriatric Care Research Center, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

³Department of Health in Disasters and Emergencies, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

⁴Department of Medical Surgical Nursing, Faculty of Nursing and Midwifery, Non-Communicable Disease Research Center, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

ARTICLE INFO

Article Type:
Original

Article History:

Received: 10 September 2018

Accepted: 6 December 2018

Published online: 14 December 2018

Keywords:

Restless leg syndrome
Sleep quality
Hemodialysis
End-stage renal disease

ABSTRACT

Introduction: Restless leg syndrome (RLS) is a common sensory disturbance in hemodialysis patients causing mental disorders, sleep disturbances, and other problems.

Objectives: This study compared the effects of massage and vibration on sleep quality and severity of symptoms of RLS in hemodialysis patients.

Patients and Methods: This cross-over clinical trial was conducted on 80 hemodialysis patients with RLS who were assigned into two groups randomly. The first group received massage and the second group received vibration. Each group received the related intervention for one month three times per week each session lasting 10 minutes. One month after the first intervention, the interventions were changed in a cross-over design between the two groups. The severity of symptoms of RLS and sleep quality were assessed before and after interventions using the related questionnaire.

Results: The means of severity of symptoms of RLS and sleep quality showed a significant improvement after both interventions of vibration and massage ($P < 0.001$). Additionally, a significant difference was observed in the means of severity of RLS and sleep quality after interventions between two groups hence vibration exerted a greater effect on improving the symptoms of RLS and sleep quality in patients compared to massage ($P = 0.001$).

Conclusion: Our findings suggested that both vibration and massage reduce the mean of severity of RLS and improve sleep quality in hemodialysis patients, with vibration exerting a greater effect compared to massage.

Implication for health policy/practice/research/medical education:

In a study on 80 hemodialysis patients, we found vibration and massage therapy significantly reduced the mean intensity of restless leg syndrome symptoms and improved sleep quality in hemodialysis patients.

Please cite this paper as: Azimpour S, Hosseini HS, Kazemi M, Eftekhari A. The effects of vibration and massage on severity of symptoms of restless leg syndrome and sleep quality in hemodialysis patients; a randomized cross-over clinical trial. J Renal Inj Prev. 2019;8(2):106-111. DOI: 10.15171/jrip.2019.20.

Introduction

The end-stage of renal failure involves the irreversible and progressive reduction of kidney function which requires alternative treatment for kidney function (1). Currently, the most common treatment modality for pronounced renal failure around the world is hemodialysis (2). Although

hemodialysis has caused longer survival of hundreds of patients among thousands of end-stage renal disease (ESRD) patients, they are exposed to various problems and complications (3). Among them, nervous system complications, burning sensation in the body, restless leg syndrome (RLS), feet prolapse (podiatric ptosis), and even

*Corresponding author: Majid Kazemi, Ph.D, Email: Maj_kaz@yahoo.com, Dr.kazemi.n@rums.ac.ir

Pengaruh Massage Lavender Oil Pada Pasien Restless Leg Syndrome (RLS) Yang Menjalani Hemodialisa

Yuasti Ningsih^{1*}, Arina Maliya², Kusnanto³

¹Mahasiswa Profesi Ners, Fakultas Ilmu Kesehatan, Universitas Muhammadiyah Surakarta

²Departemen Keperawatan Medikal Bedah, Fakultas Ilmu Kesehatan, Universitas Muhammadiyah Surakarta

³Perawat Senior, Rumah Sakit Umum Daerah Ir. Soekarno Kabupaten Sukoharjo

**yuastiningsih058@gmail.com, aml69@ums.ac.id, kusnanto70.kk@gmail.com*

Abstrak

Keywords:
Massage, Lavender oil, Restless Leg Syndrome, Hemodialisa

Latar Belakang: Hemodialisa merupakan prosedur pembersihan darah melalui ginjal buatan atau dializer dan dibantu pelaksanaannya oleh mesin. Pengobatan ini diharapkan dapat meningkatkan kualitas hidup dan memperpanjang usia pasien gagal ginjal kronik. Hemodialisis yang merupakan suatu metode artifisial untuk membuang limbah. Hemodialisis sangat membantu pasien GJK, namun terapi ini juga berisiko menimbulkan komplikasi yaitu salah satunya komplikasi neurologi. Meskipun hemodialisis sangat membantu pasien GJK, namun terapi ini juga menimbulkan sejumlah permasalahan dan komplikasi serta adanya berbagai perubahan bentuk dan fungsi sistem dalam tubuh, salah satunya komplikasi neurologi yang dapat terjadi pada pasien hemodialisis adalah gangguan pergerakan dan restleggs legs syndrome (RLS). RLS merupakan gangguan neurologis sensorik motorik umum yang ditandai dengan sensasi tidak nyaman pada anggota gerak bagian bawah seperti nyeri, kesemutan, dan kram otot sehingga memaksa pasien untuk terus menggerakkan kaki, hal tersebut membuat tidak nyaman dan mengarah ke kualitas hidup pasien dan mempengaruhi fungsi tubuh. Tujuan penelitian ini adalah untuk mengetahui pengaruh massage lavender oil pada pasien restless leg syndrome (RLS) yang menjalani hemodialisa. **Metode:** Penelitian ini merupakan penelitian kuantitatif dengan menggunakan metode Quasi Experiment, jenis desain yang digunakan adalah Quasi Experiment dengan uji normalitas dan didapatkan hasil nilai signifikansi 0,548 > 0,05, sehingga disimpulkan data berdistribusi normal selanjutnya uji Pre-Post Test Design menggunakan skala pengukuran International Restless Legs Scale, kemudian di Paired t-Test. Teknik pengambilan sampel menggunakan Purposive Sampling. Sampel pada penelitian ini sejumlah 10 pasien. Hasil penelitian Pengaruh massage lavender oil pada pasien Restless Leg Syndrome (RLS) yang menjalani hemodialisa dengan menggunakan uji Paired t-Test didapatkan hasil p-value 0,002 < 0,05. **Kesimpulan:** pada setelah intervensi, maka disimpulkan adanya pengaruh massage lavender oil terhadap penurunan RLS Score pada pasien yang menjalani hemodialisa.

1. PENDAHULUAN

Gagal ginjal kronis (GJK) merupakan penurunan fungsi ginjal bersifat progresive dan irreversible yang ditunjukkan adanya laju filtrasi glomerulus (GFR) kurang dari 60 ml/menit per 1,73 m², yang berlangsung selama tiga bulan atau lebih dengan beragam etiologi, yang mengakibatkan tubuh gagal mempertahankan metabolisme dan

keseimbangan cairan dan elektrolit yang mengakibatkan uremia (J, Abraham, & Malavizhi, 2017). Seperti kita ketahui, fungsi utama ginjal adalah mempertahankan homeostasis tubuh dalam menjaga konsentrasi banyaknya konstituen plasma, terutama elektrolit, air, dengan mengestimasi zat-zat yang tidak diperlukan atau berlebihan dalam urine (La. musa, Kundre, &



Contents lists available at ScienceDirect

Complementary Therapies in Clinical Practice

journal homepage: www.elsevier.com/locate/ctcp

The effect of foot reflexology and back massage on hemodialysis patients' fatigue and sleep quality



Kevser Sevgi Unal^a, Reva Balci Akpınar^{b,*}

^a *Osmaniye Korkut Ata University, School of Health, Osmaniye, Turkey*
^b *Atatürk University, Faculty of Health Sciences, Erzurum, Turkey*

ARTICLE INFO

Article history:
 Received 5 April 2016
 Received in revised form
 15 June 2016
 Accepted 15 June 2016

Keywords:
 Back massage
 Fatigue
 Hemodialysis
 Nursing
 Foot reflexology
 Sleep quality

ABSTRACT

Objective: The aim of this study is to examine the effectiveness of foot reflexology and back massage on optimizing the sleep quality and reducing the fatigue of hemodialysis patients.

Methods: The study includes 105 volunteer patients who were registered at a private dialysis clinic and were receiving hemodialysis treatment. Foot reflexology and back massage were administered to the patients two times a week for four weeks. The Visual Analogue Scale for Fatigue and the Pittsburg Sleep Quality Index were used to collect data.

Results: The differences between the pretest and posttest score averages of the patients on the Visual Analogue Scale for Fatigue and the Pittsburg Sleep Quality Index were statistically significant ($p < 0.001$).

Conclusion: Foot reflexology and back massage were shown to improve the sleep quality and reduce the fatigue of hemodialysis patients. Compared to back massage, foot reflexology was determined to be more effective.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Hemodialysis patients experience fatigue due to a variety of reasons, including the accumulation of metabolic waste in the body, fluid-electrolyte imbalances, abnormal energy expenditure, inappetence, anemia and depression. As this feeling of fatigue tends to persist even after resting and is difficult to prevent. Fatigue and sleeplessness negatively affect patients' work, leisure activities, nutritional habits, sexual lives and relationships with family and friends [1–4]. It has been reported that between 50% and 83% of hemodialysis patients experience sleep disorders [1,2], and that between 7% and 92.5% experience fatigue [1,3,4].

Controlling the sleeplessness and fatigue experienced by hemodialysis patients requires a multidisciplinary approach, one in which nurses play a particularly important role in eliminating or mitigating these complaints. Included among the complementary practices nurses use to overcome problems with sleeplessness and fatigue are massage, aromatherapy and music therapy [5]. Massage is included in the Nursing Intervention Classification and is a simple and noninvasive method for ensuring relaxation [5]. Involving the

palpation of soft tissue and muscles, massage is therapeutic touch that leads to both physical and mental relaxation and is capable of generating energy transmission between the practitioner and the subject, and therefore can be used to help patients overcome sleep problems [6,7]. Field et al. (2007) reported that back massage resulted in reduced pain, anxiety and sleep disorders and improved their participants' moods by relaxing them [8].

Reflexology is defined as: "A technique for helping to normalize body functions by applying the hands to reflex points in the hands, feet and ears that are related to the entire body's glands, organs and parts" [9–11]. In reflexology, which is the stimulation of neural pathways, reflex areas are stimulated using the fingers in order to transmit nerve impulses, restore proper flow of the blood stream and maintain the homeostasis of the body. More particularly, foot reflexology is a pressure technique applied to the nerve endings in feet. The effects of reflexology on subjects have been demonstrated in various clinical trials [11–25]. Studies have shown that reflexology reduces anxiety [12], nausea and vomiting [16,23], pain [17,18,24], sleeplessness [17,18,21] and fatigue [18–20,22–24]. In one particular study conducted on patients with chronic renal failure and hemodialysis patients, reflexology was shown to have positive effects on cramps, fatigue, emotions and the immune system [20]. In the literature review, no studies, however, were found that compare the effects of foot reflexology

* Corresponding author.
 E-mail addresses: kevser-sevgi@hotmail.com (K.S. Unal), reva@atauni.edu.tr (R. Balci Akpınar).



Contents lists available at ScienceDirect

Complementary Therapies in Medicine

journal homepage: www.elsevier.com/locate/ctim

Short-term effects of massage with olive oil on the severity of uremic restless legs syndrome: A double-blind placebo-controlled trial



Morteza Nasiri^{a,b}, Mohammad Abbasi^c, Zeynab Yousefi Khosroabadi^d, Hossein Saghaei^e, Fahimeh Hamzeei^f, Meysam Hosseini Amiri^{g,h}, Hossein Yusefiⁱ

^a Department of Operating Room Technology, School of Paramedicine, Qom University of Medical Sciences, Qom, Iran

^b Students Research Committee, Department of Surgical Technology, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran

^c Department of Nursing, School of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran

^d Students Research Committee, Qom University of Medical Sciences, Qom, Iran

^e Department of Internal Medicine, School of Medicine, Qom University of Medical Sciences, Qom, Iran

^f Students Research Committee, Qom University of Medical Sciences, Qom, Iran

^g Department of Anesthesiology, School of Paramedicine, Qom University of Medical Sciences, Qom, Iran

ARTICLE INFO

Keywords:

Massage

Olive oil

Renal dialysis

Restless legs syndrome

ABSTRACT

Background: Although the efficacy of olive oil massage has been established for different disorders, no studies have yet focused on the effect of olive oil massage on restless legs syndrome (RLS). In this study, we aimed to evaluate the short-term effects of massage with olive oil in reducing the severity of uremic RLS.

Methods: This double-blind placebo-controlled trial was conducted on 60 patients with uremic RLS (mean age: 51.96 ± 10.15), who were randomly divided into olive oil and placebo groups. The olive oil group received massage with olive oil, while the placebo group received massage with liquid paraffin twice a week during hemodialysis sessions for three weeks. For each leg, 10 ml of the olive oil or placebo was applied and then massaged for five min from the plantar surface of the foot to the area below the knee. The severity of RLS was rated on the first day and one week after the final massage therapy session by using the International Restless Legs Syndrome Study Group (IRLSSG) Rating Scale.

Results: In terms of different categories of RLS severity, a significant decline was observed only in the olive oil group from the pre- to post-intervention stages ($P = 0.003$). After the intervention, the decline in the total RLS severity was more significant in the olive oil group ($P < 0.001$), compared to the placebo group ($P = 0.019$). Moreover, a significant difference in the total RLS severity ($P < 0.001$) and different categories of RLS severity ($P = 0.002$) was observed after the intervention between the groups in favor of olive oil massage. However, no significant difference was found between groups in pre-intervention stage in this regard ($P = 0.363$ and $P = 0.955$, respectively).

Conclusion: Application of short-term massage with olive oil as a complementary method seems to be effective in reducing the severity of uremic RLS. Further studies are suggested to identify the sustainability of the findings.

1. Introduction

Restless legs syndrome (RLS), also known as Willis-Ekbom disease, is a neurological disorder, characterized by extremely unpleasant sensations in the lower extremities, leading to an irresistible urge to move the legs.¹ Patients with this disorder commonly experience chronic

pain, paresthesia or dysesthesia, tingling sensations, and feelings of creeping and burning in the legs.² This condition can cause adverse effects, including reduced quality of life and sleep disturbances (i.e., insomnia).^{3,4} It is known to frequently occur in patients with chronic renal insufficiency as a result of hemodialysis (HD).⁵ Therefore, management of uremic RLS is essential in HD patients.⁶

Abbreviations: BMI, body mass index; CONSORT, consolidated standards of reporting trials; HD, hemodialysis; IRLSSG, International RLS Study Group; RLS, restless legs syndrome

* Corresponding author.

E-mail addresses: mortezanasiri.oe87@yahoo.com, m_nasiri@sums.ac.ir (M. Nasiri), mohamad_abbasi55@yahoo.com (M. Abbas), hajom1394@yahoo.com (Z.Y. Khosroabadi), dr.hosseinsaghaei@gmail.com (H. Saghaei), hamzeei29@gmail.com (F. Hamzeei), hoseini_amiri@yahoo.com (M.H. Amiri), hajom1394@yahoo.com (H. Yusefi).

<https://doi.org/10.1016/j.ctim.2019.05.009>

Received 10 June 2018; Received in revised form 27 March 2019; Accepted 7 May 2019

Available online 08 May 2019

0965-2290/© 2019 Elsevier Ltd. All rights reserved.

PERBEDAAN TERAPI BACK MASSAGE DAN AKUPRESUR TERHADAP KUALITAS TIDUR PASIEN HEMODIALISA DI RUMAH SAKIT UMUM LANGSA

Mailisna¹, Sutomo Kasiman², Evi Karota Bukit³

¹Mahasiswa Magister Ilmu Keperawatan Universitas Sumatera Utara,

²Dokter penyakit dalam Spesialis Jantung (Konsultan)

³Dosen Departemen Kep. Jiwa dan Komunitas Fakultas Keperawatan Universitas Sumatera Utara

E-mail: kandamailisna@yahoo.co.id

ABSTRAK

Tujuan penelitian: mengetahui perbedaan terapi *back massage* dan akupresur terhadap kualitas tidur pasien hemodialisa di Rumah Sakit Umum Langsa. **Metode:** Jenis penelitian yang digunakan ialah kuasi eksperimen dengan *pretest dan posttest* pada dua kelompok (*two group pretest dan posttest desain*). Populasi pada penelitian ini berjumlah 88 orang yang menjalankan hemodialisa rutin. Jumlah sampel sebanyak 66 orang (33 responden dilakukan terapi *back massage* dan akupresur) yang diperoleh dengan menggunakan teknik *non probability sampling* jenis *consecutive sampling*. Pengumpulan data menggunakan kuesioner kualitas tidur dengan skor 0–21. Analisis bivariat menggunakan uji *paired t test* dengan derajat kemaknaan α (0.05). **Hasil:** Hasil penelitian menunjukkan tidak terdapat perbedaan yang signifikan hasil skor kualitas tidur di antara *therapy back massage* dan akupresur dengan nilai $p=0.575(>0.001)$. Penelitian ini menunjukkan ada peningkatan kualitas tidur pasien hemodialisa setelah dilakukan intervensi. **Kesimpulan:** Terapi *back massage* dan akupresur dapat dijadikan sebagai tindakan terapi komplementer yang dapat diaplikasikan sebagai upaya peningkatan kualitas tidur pasien hemodialisa.

Kata Kunci: terapi *back massage*, akupresur, kualitas tidur, hemodialisa

The Difference between Back Massage Therapy and Acupressure on Quality of Sleep in Hemodialysis Patients at General Hospital of Langsa

ABSTRACT

Objective: This study aims at identifying the difference between back massage and acupressure therapy on quality of sleep in hemodialysis patients at General Hospital of Langsa. **Methods:** It employed a quasi-experimental method with two-group pretest-posttest design. The population was 88 patients who received hemodialysis routinely. A sample size was 66, consisting of 33 receiving back massage and 33 receiving acupressure and taken using non-probability sampling design, i.e. consecutive sampling. Data were collected using questionnaires concerning the quality of sleep with a score of 0-21 and analyzed using bivariate analysis with paired t-test at α (0.05). **Results:** The results of the study indicated that there was the difference in the quality of sleep before and after back massage therapy and acupressure with p -value=0.575 (>0.001). It was also found that there was the increase in the quality of sleep in hemodialysis patients after the intervention. **Conclusion:** Back massage and acupressure therapy can used as a complementary therapy which can applied as the therapy for improving the quality of sleep in hemodialysis patients.

Keywords: Back Massage Therapy, Acupressure, Quality of Sleep, Hemodialysis.

Journal Pre-proof

The effect of aromatherapy hand massage on distress and sleep quality in hemodialysis patients: A randomized controlled trial

Dilek Efe Arslan, Nazan Kılıç Akça

PII: S1744-3881(20)30079-7

DOI: <https://doi.org/10.1016/j.ctcp.2020.101136>

Reference: CTCP 101136

To appear in: *Complementary Therapies in Clinical Practice*

Received Date: 15 January 2020

Revised Date: 26 February 2020

Accepted Date: 4 March 2020

Please cite this article as: Arslan DE, Akça NazanKılıç, The effect of aromatherapy hand massage on distress and sleep quality in hemodialysis patients: A randomized controlled trial, *Complementary Therapies in Clinical Practice* (2020), doi: <https://doi.org/10.1016/j.ctcp.2020.101136>.

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. Please note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

© 2020 Published by Elsevier Ltd.



SURAT PERNYATAAN

Saya yang bertanda tangan dibawah ini :

Nama : Annisa Masruro, S.Kep

Nim : 1911102412096

Judul KIAN : "Pengaruh Terapi Pijat Dengan *Lavender Oil* Terhadap *Restless Legs Syndrome* Dan Kualitas Tidur Pada *Pasien Chronic Kidney Disease On Hemodialysis : Literatur Review*"

Dengan surat pernyataan ini saya menyatakan bahwa saya menggunakan metode penelitian *Literatur Review*. Demikian permohonan yang saya sampaikan atas perhatiannya saya ucapkan terima kasih.

Samarinda, 12 Oktober 2020

Pemohon



Annisa Masruro, S.Ken
1911102412096

Pembimbing



Ns. Faried Rahman H, S.Kep., M.Kes
NIDN : 1112068002

Mengetahui,
Ketua
Program Studi Profesi Ners











Nur Rahmah Fitriani, M.Kep
NIDN. 1119097601

LEMBAR KONSUL

Judul : Pengaruh *Massage Therapy* Terhadap *Restless Legs Syndrom* Dan Kualitas Tidur Pada Pasien *Chronic Kidney Disease* Di Ruang Hemodialisa : *Literatur Review*

Pembimbing : Ns. Faried Rahman H.,S.Kep.,M.Kes

No	Tanggal	Konsul	Hasil Konsul	Paraf
1.	07-juli 2020	-PRE Conference -Konsul Jurnal -S Internasional	Revisi Jurnal	
2.	11-juli 2020	-konsul jurnal Internasional -konsul judul	Revisi Jurnal Revisi Judul	
3.	14-juli 2020	-konsul judul. - konsul jurnal	Revisi judul Acc.	
4.	17-juli 2020	-konsul judul -konsul SOP	Acc judul Revisi.	
5.	20-juli 2020	-konsul BAB 1,2,3 -konsul SOP 12	Revisi Acc.	
6.	27-juli 2020	-konsul BAB 1,2,3. -konsul sop 3. - konsul BAB 4,5.	- Perbaikan Penulisan. - Acc. - Revisi.	
7.	30-juli 2020	-konsul BAB 1,2,3. -Konsul SOP. - konsul BAB 4,5.	-ACC. -ACC. -REVISI	
8.	3 Agustus 2020.	-Konsul BAB 4 5. - Longcase.	-Acc. -Persiapan ujian untuk PLAN.	