

Foot Reflexology Application in Lung Cancer Patients and Sleep

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ABSTRACT

Sleep disorders is a complaint which is frequently observed in lung cancer patients, which reduces life quality, which is neglected and which is rarely mentioned. Although there are medical treatments aiming at mitigating/eliminating sleep disorders in these patients, sleep problems cannot be avoided. Reflexology application is one of the implementations in symptom management of cancer patients, usage of which is becoming widespread. In reflexology applications generally feet are preferred as they are sensitive and easily accessible, while containing numerous nerve endings and as they are bigger. Foot reflexology is a method that is based on stimulating reflex points on the feet by means of special hand and finger techniques. It is considered that each region of the body corresponds to a specific point on the feet and that pressure which is applied at these points can make the whole body relax and get in balance. With this method by activating the self-treatment mechanism of body, a physiological relaxation is achieved in the body and sleep quality is improved.

Keywords: Reflexology, Anxiety, Chemotherapy

INTRODUCTION

Lung cancer is characterized with uncontrolled reproduction of cells in the lung tissues. Global Health Organization (2014), states that 19.4% of cancer death incidents occur due to lung cancer and that lung cancer makes up 0.8% of global disease load [1].

Sleep problems that are among important symptoms which influence life quality during cancer and treatment period, come out as a symptom cluster of nausea, vomiting, pain, anxiety, insomnia and tiredness instead of a single symptom. Sleep problems can be neglected both by health personnel and by patients, they are sometimes considered by patients as not being important to mention, and they can make up a symptom, investigation of which is sometimes not considered and if considered, its being defined, treated and followed up may also not be considered [2]. However, sleep is necessary for maintaining psycho-physiological health. In the studies being conducted it has been determined that nearly 50% of cancer patients complained from sleeplessness and weakness and that sleep problems were seen in young patients (54%) with a ratio that was higher than patients who were older than 65 (43%) [3,4].

Physical problems such as anxiety, depression, nausea-vomiting, pain, shortness of breath, fever and cough which develop in lung cancer patients, cause sleep disorders to occur [5-7]. These symptoms are related with each other and they facilitate occurrence of one another [2]. Sleep problems

cause reduction in immune system functions by changing cytokine expression in the body. Sleeplessness which is related with the increase in norepinephrine level which plays a role in anti-tumor response and with the decrease in natural killer cell level, causes for abnormal cortisol synthesis and for reduction in natural killer cell numbers and activities [2,8]. This situation is important as it causes for prognosis to get worse in cancer patients by providing ground for development of infection and as it increases mortality [9,10].

It is stated that in cancer patients sleep disorders are also related with psychological factors and that in patients getting chemotherapy, stressful life effected sleep quality negatively, that after being diagnosed with cancer 38.1% of patients lived through the fear for the future and that this fear was meaningfully correlated with sleep problems [10,11]. Symptoms such as pain, tiredness, nausea, vomiting, anxiety, and worrying that develop during cancer and treatment process, cause disorders relating with falling to sleep and remaining in sleep while reducing sleep quality.

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Patients' sleeping with interruptions, their having difficulty in waking up causes for them to feel themselves as not having rested even if they had slept and for them to fall asleep during the day and to feel tiredness [11,12]. Le Guen et al. [13] have stated that sleeping activity of lung patients getting chemotherapy was disrupted and that the period they spent in the day and night times without having sleep increased, while Chen et al have determined that during when they got chemotherapy 'Sleep latency' score of 115 lung cancer patients were higher and that their sleep quality was lower [14]. A patient not getting adequate sleep and sleep quality of whom is disrupted, live through physical, cognitive and emotional collapse and their emotions, thoughts and motivations get disrupted. By being accompanied with problems such as tiredness, reduction in paying attention, pain, nervousness, hallucinations and lack of appetite, sleep problems are causing accidents that are threatening life and incidents of lack of harmony in daily life [11,12].

Nowadays reflexology applications which are used with the aim to mitigate and avoid sleep problems of cancer patients are attracting attention. Reflexology is a special holistic, complementary, healing treatment and energy balancing system that has a history of nearly 12000 years and which requires for direct local pressure to be applied to the ears which are considered to be a small mirror of specific organs and regions of the body and to special points, relating with specific somatic organs and regions, on the hands and feet [15-17]. According to this method, on the ears, hands, pupils and soles there are nerve points where organs last. In another saying, there is a point on ears, hands and soles where there is reflection of each organ. Stimulation causes by applying pressure at these points cause responses at the organs and they activate natural healing capacity of the body [18-21]. By opening nerve paths which are extremely loaded with sensual stimulants, reflexology application stimulates extraction of endorphine which is five times more effective than morphine [22].

In reflexology applications foot region is preferred due to the reason that it is an area where nerve endings are dense [23]. As feet contain numerous nerve endings, they are quite sensitive. In foot reflexology application, with special rubbing movements that are applied to the feet, by releasing the energy being blocked at certain regions of the body, dissemination is enabled to each live tissue and to each cell [24-26]. With foot reflexology application, waste substances having crystal structure such as calcium and uric acid which are stored at nerve endings on the feet, are eliminated with blood and lymphatic circulation and relaxation and comfort are provided. In the end by protecting natural balance of organism, physical, emotional and spiritual healing is felt [23].

DISCUSSION

Foot reflexology is applied as supportive for mitigating sleep problems that develop in cancer patients as relating with cancer and treatment process, for reducing general symptoms such as pain and tiredness, and for improving life quality [3,18,27]. In a doctorate thesis study in which effect of foot reflexology application on sleep quality of lung cancer patients getting chemotherapy was investigated, with respect to subjective sleep quality, sleep latency, sleep disorder, daily function disorder, and Pittsburgh Sleep Quality Index score averages, a meaningful difference was found between experimental and control groups [28]. In a study conducted in Turkey, foot reflexology has been shown to improve sleep quality by reducing the fatigue associated with chemotherapy [29]. Another study reported that foot reflexology improves sleep quality by reducing fatigue and pain in cancer patients [30].

Again in the studies it was found out that foot reflexology application increased sleep satisfaction, eliminated tiredness, promoted quality sleep, and that it increased sleep content. Furthermore it is stated that foot reflexology application provided a deep relaxation, that it reduced stress and anxiety, that it enabled for energy to circulate again by opening the blocked energy channels along the body, that it reduced tiredness by eliminating toxins in the body, and that it improved sleep quality [30-33].

CONCLUSION

As a conclusion, foot reflexology application can be used for improving sleep quality of cancer patients and for managing sleep problems, by being included directly in the application as a non-invasive, important, effective, supportive and economic method.

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