

Relational and psychological problems in venous ulcer therapy: questions and answers

Alberto Garavello,¹ Orazio Caudullo,² Paola Fiamma,³ Enrico Oliva,⁴ Ginevra Oliva⁵

¹SILFO - Italian Society of Oncologic Lymphophlebology, Rome; ²Psychologist, Rome; ³Professional Health Care Worker, Presidio Ospedaliero San Filippo Neri, ASL RM1, Rome; ⁴Academy of Health Art History, Rome; ⁵Faculty of Clinical and Cognitive Neuroscience, European University of Rome, Italy

ABSTRACT

Venous ulcer (VU) therapy involves not only local treatment but also interaction with patients and psychological problems related to the disease and its limitations in daily life; these aspects can make the difference between ulcer healing and therapeutic failure. A literature review from 2013 to 2023 was conducted using the keywords “venous ulcer”, “psychology”, “quality of life” and “symptoms”; 33 papers that met the search criteria were selected. The physical and psychological impact of ulcers resulted in a critical influence on patients’ quality of life; pain and depression were the main problems, relationship with doctors, and nurses and activation of “counseling” are critical for treatment success. Understanding the patient’s psychological difficulties, a correct approach with family members and support staff are key factors for VU treatment and adherence to therapy.

Correspondence: Alberto Garavello, SILFO - Società Italiana Linfo Flebologia Oncologica, via Manfredi Azzarita 41 - 00189 Roma, Italy.

E-mail: garavellalberto@gmail.com

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Introduction

Venous Ulcer (VU) deals with frail and non-self-sufficient people, often with chronic systemic diseases, and has a great impact on Quality Of Life (QOL).¹ With the increase in the elderly population the Italian National Health System became interested in home care for patients that can’t reach treatment centers. However, the family environment may be difficult to cope, due to obstacles posed not only by the patient but also by relatives or support staff; these conflicts can affect therapy outcomes, and lead to prolonged treatment and costs, with dissatisfaction of patients and operators.² Psychological aspects of patients with VU have not yet received the necessary attention, but everyday experience teaches us of conflicts arising during therapy;³ VU causes pain, sleep disturbances, lack of energy, restriction of daily activities, frustration, and loss of self-esteem.⁴ Patients with Chronic Venous Insufficiency only (CVI) have a better QOL than patients affected by CVI and VU;⁵ in this paper we analyzed the literature on psychological problems in VU to identify and prevent the most common distress situations of the patient and his family. Maddox highlighted how “nurses” dedicate more than half of their time to treating ulcers, focusing attention only on local therapy;⁶ the complex psychological and social effects of VU are often overlooked, as the critical aspects of patient relationship and “counseling” opportunities, with a negative impact on therapy. A PubMed search with keywords “venous ulcer”, “psychology”, “quality of life” and “symptoms” was conducted: papers published from 2013 to 2023 were taken into account and 33 were selected. The most frequent problems in VU were pain, psychological well-being, depression, limitations of social interaction, and restriction of working capacity. The heavy impact of VU on QOL therefore clearly emerges, with an effect on mental health and depression onset. Four fundamental aspects affect the patient’s relationships both with disease and the people who take care of him: i) physical impact of the ulcer; pain, itching, swelling, exudate, and odor rep-

resent a daily challenge, ii) psychological impact; depression, stress, sleep disorders, iii) social and employment impact, iv) impact of treatments (pain, discomfort).

These factors heavily influence QOL and from the beginning, a “global” and multidisciplinary approach is required;⁵ below we analyze separately these factors and possible solutions facing them during VU therapy.

Physical impact

Pain

The literature highlighted how pain, of greater intensity in larger lesions, represents the most serious problem in UV, despite other concomitant diseases;^{3,5,7} pain generally occurs at night, prevents sleep, and sometimes patients wake up when the effect of the painkillers wears off.⁷ Unfortunately pain therapy is often neglected or insufficient^{3,8} and a vicious circle is triggered, cause the patient thinks about the ulcer and further loses sleep.^{7,9,10} Pain, when chronic, gives the sensation of being uncontrollable⁷ and worsens if treatment does not produce results; therefore it dominates the patient’s life causing depression,¹⁰ limiting his activities¹¹ with a devastating psychological impact reducing QOL.⁵ Pain prevents sleep, lowers mood, limits mobility, and is described as unbearable, intractable, difficult or impossible to eliminate.^{11,12} A study by De Oliveria¹³ demonstrated how QOL in VU is linked to pain intensity, compromises physical and sexual activity, leads to mood alterations and reduction in self-esteem;^{5,12} feelings such as desperation, dysfunctions in family roles, at work, and in free time may also arise. The type and intensity of pain vary depending on the culture and emotionality of each patient, the severity of the condition, and the degree of “compliance” with treatments.¹⁴ In a study by Goncalves, the greatest intensity of pain was found in females and subjects of low economic level, a fact also noted by others.^{7,15} Unfortunately, therapeutic strategies are often insufficient and pain is sometimes underestimated even by doctors,^{7,8,10} with a decrease in QOL and delay in ulcer healing. Recently Leren highlighted that less than 60% of patients have an ulcer pain treatment, this is effective in approximately 45% of cases^{16,17} and largely insufficient. Non-pharmacological strategies for pain may be walking around the bed, activities that may distract the patient, avoiding postures that trigger pain, elevating the limb, assuming pain-relieving positions, massaging the limb, using elastic stockings, diuretics to reduce limb edema, if not already on therapy.^{7,13,18}

However, it’s important not to forget that pain, in many cases, is due to infection of ulcers and surrounding tissues, so antibiotic therapy according to international guidelines is mandatory.¹⁸ Measures to reduce the chance of trauma, such as avoiding crowded areas, pets, and children, are effective but can lead to patient isolation.⁷ However, pain can also have a positive effect; its memory will motivate the patient to take care of his leg to avoid ulcer recurrence.⁷ VU pain therapy must have frequent checks, also discussing its effectiveness with the patient;¹⁰ generally NSAIDs are the most used drugs.^{15,16}

Itching

According to Upton, itching is defined as “an irritating skin sensation with a desire to scratch”;⁴ in VU this is a physical, and psychological problem closely related to healing and affects

QOL.¹⁹ Some patients see itch as the first sign of recurrence, others as a sign of recovery;⁷ itching usually affects the lesional or peri-lesional area around the compression bandage, and is classified as the fourth among ten symptoms causing stress, impacting on QOL together with anxiety, depression, loss of sleep, delay in healing.

It will be necessary to act with the “caregiver” to treat the perilesional area according to international guidelines.¹⁹

Swelling, exudate, and bad odor

Edema and leg swelling may have many causes that need to be investigated. Exudate and bad odor cause discomfort particularly when the dressing is wet, with a tremendous effect on socialization and leading to isolation.⁵ Treatment strategies are therefore necessary: use of deodorants, overlapping of another bandage, trousers to hide bandage swelling, prohibition of sitting, control of medications, postural rules, and walking.^{7,10,11,20,21} There is a wide range of dressings to absorb exudate, however, in some wounds, a change may be necessary every twenty-four hours to prevent maceration and avoid infections.²⁰ Exudate and bad odor are described as disgusting, unbearable, devastating, and causing shame, aggravated by the fact that bandages must remain in place for days and cleansing the limb is not possible.⁷ Isolation, depression, and bandage limit friendships and contacts, and the patient feels discriminated against by society and even by his family; this creates resignation, impotence, and loss of confidence towards healing, with anxiety, depression, dissatisfaction, body image alteration and self-isolation that may lead to thoughts of suicide.^{5,11,12}

Mobility

Mobility is a serious problem and finding suitable footwear is one of the patient’s main reasons for concern; Herber identified some factors: pain prevents physical activity, dressing discouraging outdoor activities, fear of moving freely, and difficulties in personal hygiene.^{5,7,10}

Beyond that, Heinen and Green reported fear of falling and injuring the leg, the need to sit and rest the limb, and restrictions given by medication timetables.^{11,12}

Patients fear crowded areas for the risk of leg trauma, but this contributes to isolation in their homes.⁷ In a study by Heinen, 26% of the patient’s socialization and mobility problems were caused by pain, inability to stand upright, exudate, fear of the legs trauma, and sense of shame.¹⁰ Difficulties in correct personal hygiene reduce socialization, and limitation of clothing is another reason for self-esteem loss;¹¹ more, and worse, this leads the patient to depend on others in daily life.^{5,10}

The caregiver’s intervention must be aimed at ensuring the use of appropriate footwear, to improve motility, walking and correctly activate the calf venous pump, stimulating the patient in mobilization, a dressing change as possible atraumatic, to avoid a painful experience the patient knows he must repeat.¹⁰

The psychological impact

The literature highlighted how VU affects a patient’s QOL and mental status,^{5,11,22,23} with a feeling of being “controlled” by his pathology, a pessimistic vision of the future, and body image.⁷ According to Heinen, patients complain of feelings of helplessness (37%), dependence (48%), depression¹⁰, and pessimistic

thoughts about therapy, particularly if therapy takes a long time;⁷ however, hope of healing is never lost, although decreases with advancing age. The QOL of ulcer patients has been evaluated relating to social aspects; functional capacity, vitality, and pain appear more serious in unmarried and separated people.²⁴ Dias noted that low levels of education and low income are common, as difficulties in health facilities access; particularly medication cost, in low-income situations, is a further destabilizing factor.⁵ Patients with chronic VU are at risk of emotional and psychological problems, which can affect them physically and mentally.^{10,25} The sexual sphere is also affected by the loss of self-esteem, fear of being rejected, and the impossibility of sexual experiences,²⁶ particularly in young people and women; VU is, therefore, an obstacle to emotional approach and maintaining a stable relationship.²⁷ Chronic disease implies loss of sense of integrity (patients perceive their limb as foreign object), feeling of uncertainty (patients have a low level of spirituality, don't believe in divine presence in daily life, don't pray and have little hope of healing),^{25,28,29} modification of self-image concerning oneself and others.^{13,30} For Ebbeskog the concept of "body image" appears crucial; understanding a patient's perception of VU and its impact on well-being appears particularly important.³¹ It's a struggle between the "prison" of ulcer and bandage against the hope of healing; "nurses" are of great importance in recognizing these problems. Living with an ulcer represents a dialectical relationship between "feeling imprisoned" in the body and bandage at home with the hope of being free; the concept of "body image" is, therefore, relevant in VU therapy,^{31,32} as it results in changes in family and social roles and marital status is an important factor in the psychological aspect of QOL. Lin found that being male, single/divorced, widowed, or unemployed puts the VU patient at risk of a low quality of life.³³ Further changes in lifestyle concern changes in professional and family performance, constant and conscious participation in care, and continuous attention to style and living environment.²⁶

Psychological consequences of such situations on the patient may be:^{11,29,30,33,32} i) regression to infantile behaviors; ii) reduction of interests; iii) egocentrism; iv) dependence on others; v) "magical thinking": a patient experiencing a distressing situation or facing with his impotence can unconsciously develop magical thinking to control, explain or even changing reality. In this way he escapes the fear of having any control over the situation; vi) complicity with the disease or ulcer, experienced as a punishment; vii) avoidance of frustrating relationships, introversion; viii) escape into imagination; ix) feeling of helplessness, decreased self-confidence, reduced willpower; x) feeling of "dirtiness" caused by exudate and bad odor; xi) disappointment, sadness, anger, and anxiety. The concept of "biographical destruction" emerges, that is, a clear distinction between life before and after the appearance of the ulcer with no hope for the future; xii) potential desire for amputation and suicidal thoughts.

In starting VU treatment it's always important to carry out an assessment of the patient's risk and protective factors and consider:^{11,12,13,34,35} i) psychological state before VU onset; and ii) level of education, that may interfere with the ability to understand VU pathology and follow home therapy; this may result in problems with "adherence" to treatment and delayed healing. Low levels of education have often been associated with poor therapeutic results and this may explain failures in most disadvantaged socioeconomic patients; iii) family-affective situation

(partner); functional capacity, pain, vitality, physical and social aspects seem better for married people than for single or separated people;²⁴ social status of being male and unemployed also puts the patient at risk for a low QOL;³³ iv) "coping" style, or patient's behaviors to keep under control, face and/or minimize conflicts and stressful situations or events.

Anxiety, depression, shame, low self-esteem, impotence, and depression also have an impact on ulcer evolution; more studies have shown that stress and negative emotions interfere with the healing process, inhibiting the proliferation of fibroblasts and keratinocytes.^{36,37} Promoting psychological well-being is therefore necessary for VU healing;³⁴ increased physical activity, weight loss, stop smoking, and dietary changes can improve the patient's prognosis.⁸ It's always necessary to stimulate the patient's "positive" psychological resources during the therapeutic process³⁹ to avoid emotional crisis.

Depression

This is the most frequent disorder, caused by VU limitations, and is responsible for healing delay;^{36,37,38} Dalgart highlighted a higher incidence of depression in patients suffering from leg ulcers compared to any other skin pathology.³⁹ In painful lesions older than 90 days, depression is common and represents an important factor in low QOL.³⁸ Kumar finds a strong association between anxiety, depression, and recovery to a deficit in cellular immunity.⁴⁰ Evidence is emerging linking VU patients with medium-severe pain to high levels of fatigue, depression, and anxiety; this pathological complex has been given the name Psycho-Neurological Syndrome (PSN).⁸ Some authors hypothesized a relationship between cellular and molecular mechanisms underlying VU and the development of PNS; studies are currently underway to better understand links between inflammatory mediators and behavior in acute and chronic medical conditions. 30% of patients suffering from "non-healing" chronic ulcers have an incidence of depression three times higher than "healing" patients;⁴¹ preventing, recognizing, and treating depression is a critical factor in improving the patient's adherence to therapy, especially compression.⁴²

Stress

According to Selye stress is "a (general) non-specific response to any request ("demand") coming from the environment".⁴³ It's a biological mechanism that leads an organism's adaptive responses when facing danger, with signs and symptoms called General Adaptation Syndrome (GAS). Different stimuli can induce stereotyped "stress" responses, determined not by the nature of the stimulus, but by its intensity. For this reason, the stimulus does not necessarily have to be harmful to activate a GAS, but can also be intensely pleasant or joyful: response is non-specific because its purpose is to promote a general adaptation of the organism. Stress is a well-known factor in pro-inflammatory cytokines secretion in ulcers.⁴⁰ Walborn demonstrated that high levels of stress, depression, and negative perception of the pathology are associated with slower healing, regardless of socio-demographic level, comorbidities, and ulcer type.³⁵ Depending on others for domestic activities can generate a sense of guilt towards relatives; it's necessary to engage the patient in useful and recreational activities according to his possibilities.⁷

Sleep disorders

In a study by Heinen, the main cause of sleep disorders in VU was pain in 45% of patients, itching in 38%, and exudate in 12% and are related to low QOL^{4,33} as a consequence of wound pain, treatment, or psychological concerns. Upton found that 69% of ulcer patients suffer from sleep disorders, 88% wake up at least once at night and pain is the most frequent cause.⁴⁴ Leren found that low sleep quality increases the possibility of moderate-severe pain, particularly in older women;¹⁶ solutions to night rest problems appear critical for the healing process. In a review by Green, insomnia leads to daytime tiredness, loss of strength, and reduction in well-being, that is, “the more you think about the ulcer the more debilitation and worries grow”;^{3,7} this implies dependence on relatives and restriction of daily activities.³³ Sleeping is essential for the tissue repair process, as hormones produced during sleep play a vital role in this function; sleep disorders hinder ulcer healing by interfering with the role of macrophages and lymphocytes.^{40,44} A therapeutic action could be to create a “sleep diary” about awakenings and difficulties in falling asleep. Stimulating the patient in activities such as preparing meals, gardening, or taking care of a pet during the day, will reduce night-time difficulties.

The “cluster symptoms”

Recently the concept of “cluster symptoms” and their correlation with QOL emerged. In ulcers there is a “cluster” of “local” symptoms such as pain, fatigue, exudate, inflammation, and edema, and a “cluster” of “systemic” symptoms, such as pain, fatigue, and depression, highly correlated with QOL; in both clusters difficulties carrying out physical activities are present.⁴⁵ There would be a strong correlation between clusters of “systemic” symptoms and mental health QOL; depression would thus be correlated with low levels of physical and psychological function.⁴⁵ Finlayson highlighted a significant relationship between VU healing and a “cluster” of symptoms consisting of pain, depression, fatigue, and sleep disturbances.⁴² Doctors and nurses should look for the presence of symptom “clusters” rather than focusing on the “single” symptom, for an effective therapy planning; this highlights the importance of a comprehensive analysis to identify “difficult” ulcers and act early on symptoms.^{42,45}

Doctor-patient relationship

The doctor-patient relationship is made of reciprocal trust and mutual esteem; with reciprocity, we mean that the doctor must be able to “trust” that the patient and those who take care of him will follow his instructions and are motivated to solve the problem. It will be necessary;^{33,34,37,46} i) that the patient must be as autonomous as possible in the treatment process, also teaching self-medication; ii) reduce “avoidance” stimulating “empowerment” or doing those things that the patient would like to avoid; this to reinforce the power of personal choice, increase responsibility, improving skills and knowledge; iii) intervene on “procrastination VS self-esteem” or “postponing to another time” what they want to do; in this way, their self-esteem may be restored; iv) intervene on “dependence VS autonomy”, or promote “independence to implement autonomy”, also with education programs aimed to prevent ulcer re-

currence; v) many variables can modify adherence to therapy, in example a high complexity of drug regimen; sometimes, patients or the “caregiver” change it due to carelessness or distractions.

So it will be necessary to create a diary of prescribed therapy, set alarms or “memorandum” telephone ringtones, and write daily medications on the weekly calendar.

This is useful for organizing and not forgetting daily intakes which in particular cases (such as anticoagulant therapy) require absolute respect; inability to understand the causes of VU increases the patient’s feeling of helplessness and leads to problems in “compliance”.¹¹ Management of a fragile person is very demanding and the caregiver’s role is critical as they must have adequate preparation, and support the family in assistance from a practical, psychological, and emotional point of view. Nursing support is considered by patients¹¹ as a key factor in VU care; competence in dressing and a regular update of therapy progress appears essential.

Counselling

With counseling the doctor accesses the decision-making and behavioral mechanisms of the patient and “the people who take care of him”, to help change dysfunctional behaviors with others more useful for recovery, when treatment adherence is unsatisfactory. A trial on UV patients demonstrated that lifestyle counseling interventions improved physical activity and reduced time for healing.⁴⁷ In “counseling” communication is the central tool for understanding and solving problems; this is not a therapy for psychopathological disorders but is aimed at coping with emerging discomforts and difficulties. Communication strategies are aimed at activating and reorganizing the individual’s resources and encouraging adaptive choices and changes. The home “counseling” techniques of listening and empathy allow the patient to clarify his situation and choose the best decisions to achieve their goals; furthermore, promote communication of diagnosis and prognosis, therapeutic adherence, lifestyle modification, and intra- and extra-familial dialogue. Patient education is of great importance to understand and participate in therapeutic choices, becoming the protagonist of his healing process³⁴ and this must extend to the bio-psycho-spiritual and socioeconomic aspect; attention will be paid to the patient’s weaknesses, encouraging him to face difficulties and improving his quality of life.³⁴ Relationship with the nurse is fundamental and patients report that this is one of the few positive aspects of VU, in which “continuity” of treatment appears fundamental, with a feeling of gratitude.¹¹

Conclusions

It’s essential a “360 degrees” therapy for VU patients, maintaining a good doctor-patient relationship, and implementing communication and support, so he can actively participate in wound care;³³ Maddox underlined how a “holistic” approach to the patient is mandatory to improve prognosis and quality of life.⁶ A “no-healing” lesion represents a source of concern for both the doctor, the patient and the family and the role of medical staff in “motivation” appears fundamental;⁴⁶ doctor’s communication with the patient can increase or decrease motivation

towards a particular harmful behavior because i) it identifies patient problems more precisely; ii) patients are more satisfied with therapies and may better understand their problems, investigations and treatment options; iii) they are more likely to adhere to treatments and follow instructions regarding behavioral modifications; iv) decreases fear and predisposition to anxiety and depression; v) the doctor himself works better.

Heinen noted that patients demand attention from their relatives, clear information on VU and its causes from the doctor, more attention to their concerns, and prevention of ulcers;¹⁰ in this regard, the use of e-learning programs, also for the elderly, have shown good results in preventing ulcer recurrence.

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