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Combined Acupuncture And Spiritual Care Treatments In An Acute Pain Service: Two Case Reports

By Jennifer Garlough, DAc, LAc, and Alina Wahl, MDiv

Acupuncture and Spiritual Care in the Management of Pain for Necrotizing Soft Tissue Infection: A Case Report

Abstract

This report outlines the multifaceted management of a 48-year-old female with a severe necrotizing soft tissue infection (NSTI) and bilateral osteomyelitis in the greater trochanters and left ischial tuberosity, secondary to a large decubitus ulcer and noncompliance with care.

The patient's complex medical history included bipolar 2 disorder, anxiety disorder, chronic *Clostridioides difficile* infection, type 2 diabetes mellitus, severe protein malnutrition, insomnia, and hypokalemia. This case highlights the challenges in managing NSTI alongside multiple comorbidities and the need for a holistic treatment approach.

On hospital admission, treatment commenced with a broad spectrum of antibiotics for NSTI and osteomyelitis. The acute pain service was enlisted post-debridement and allograft to manage the patient's uncontrollable pain. Notably, she declined autografting surgery. As part of the integrative acute pain service, tandem acupuncture and spiritual care treatments were introduced, resulting in improved pain management, better healing, and enhanced patient compliance with care. These non-pharmaceutical interventions, alongside conventional medical treatments, showed the importance of a biopsychosocial-spiritual approach in complex cases.

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This case report demonstrates the effectiveness of combining traditional medical treatments with integrative therapies to manage pain and support overall healing in patients with multiple health problems. It emphasizes the need for a comprehensive, patient-centered care model that addresses patients' physical, psychological, and spiritual needs, particularly in cases of severe infections and chronic conditions.

Keywords: necrotizing soft tissue infection, necrotizing fasciitis, acupuncture, spiritual care, holistic care, pain management

Introduction

This case report describes the combination of acupuncture and spiritual care along with standard medical practice to modulate pain from necrotizing fasciitis and to improve a patient's holistic health. The inclusion of spirituality in pain management has been linked to improved pain intensity, physical and cognitive function (McCabe et al., 2018), improvements in self-reported symptoms, sense of connection and rapport in provider relationships (Kristeller et al., 2005), increased pain tolerance, and greater ability to cope and find meaning in the experience of pain (Siddall et al., 2015). Although rare, necrotizing soft-tissue infections (NSTIs) progress rapidly and are life-threatening bacterial infections. Timely care, from diagnosis to surgery and supportive therapies, is crucial for positive patient outcomes. Patient education, support, and adherence to the care plan are vital to avoid complications, including reduced integrity of the wound healing, diminished patient function, and high morbidity and mortality rates (Chen et al., 2020).

Since the patient was in a contact isolation room for safety and healing, the NSTI hindered direct contact with others, further adding to her feelings of disconnection, demoralization, fear, and grief. The dual treatments built rapport and increased the patient's sense of support from the team while directly addressing her spiritual needs. Pain is a subjective and personal experience. Thus, it is necessary for the plan of managing pain to be personalized to the individual's biopsychosocial-spiritual needs. While there is ample evidence of acupuncture as a method of pain management and a growing body of research on spiritual care as an essential pain intervention, there is little to no research on using the two together.

Patient Information

Due to noncompliance with various aspects of care, a 48-year-old female with NSTI and a large decubitus ulcer developed osteomyelitis bilaterally in her greater trochanters and her left ischial tuberosity. Treatment with a spectrum of antibiotics began immediately after admission to the hospital.

The patient's history also included bipolar 2 disorder, anxiety disorder, chronic *Clostridioides difficile* infection, type 2 diabetes mellitus, severe protein malnutrition, insomnia, and hypokalemia.

During her hospital stay, her suboxone therapy was temporarily discontinued. The patient's pain regimen while in the hospital was as follows: patient-controlled epidural analgesia (PCEA) of bupivacaine 0.1% and fentanyl 2mcg/ml with 2 ml Q60 minutes, hydromorphone 0.2 - 0.4mg IV QID for wound care, acetaminophen (APAP) 1000 mg Q6H, gabapentin 300 mg TID, pregabalin 200 mg TID, methocarbamol 500mg TID, and hydroxyzine 25 mg Q6H as needed.

A week after debridement and the allograft, a T12-L1 epidural was removed. The patient declined the autographing surgery. The next day, her pain regimen was altered with additional hydromorphone 4-6 mg and hydroxyzine 25-50 mg Q6H, as needed 1 hour before wound care or bowel movements, and a once-a-day lidocaine infusion of 75mg.

Autografting was rescheduled for a week later after four combined treatments of acupuncture and spiritual care that assisted the patient in managing pain, regulated her ability to heal, and supported her in her compliance with her care. The combination of these interventions provided a non-pharmaceutical method of controlling pain and caring for the whole health of the patient, biopsychosocial and spiritual.

Clinical Findings

Treatment 1

The primary pain was bilateral numbness in her legs. "Not like pins and needles," more of a diminished overall feeling with a heaviness. As for the severity on a 0 - 10 pain scale, the patient said, "immense." Sleep was complex, with more issues staying asleep than falling asleep. The patient described "sleeping for 2 hours and then up for 2 hours and then back to sleep." The pattern repeated itself from 9 p.m. to 9 a.m. After 9 a.m., sleep was uninterrupted, sometimes until the afternoon. She described her anxiety as

her mind "racing," and even more, her body was "racing," and the pain severity increased speed. The radial pulses had tight, deep, thin, and weak qualities. The left pulse was slightly wiry, and the right had a soggy quality. The patient's tongue was red, dry, and covered in deep fissures. Veins were not visible underneath her tongue.

Treatment 2

The bilateral numbness was now only in her ankles to toes, the left foot feeling "dull." The severity of pain had increased to "very immense." The patient reported sleeping "somewhat through the night" and with pleasant dreams. She described her anxiety as "looping thoughts." Her anxiety felt more mental than physical, as her mind raced more than her body. The patient's tongue had deep fissures and no coat and was dark red. Underneath, veins were visible. Pulse information was not collected.

Treatment 3

There was no foot pain; the patient felt things were "much easier." The patient rated anxiety as "more than moderate." She described it as "a shakiness" that gave her "high energy." Her sleep had returned to her usual pattern. The left radial pulse was thin, thready, and weaker than the right. The right radial pulse was hardy in the cun and guan positions, while the chi was deep and thin. The patient's tongue was pink with a clear coat, and the fissures appeared less deep. Veins were visible underneath the tongue.

Treatment 4

Pain in the left foot radiated up to the left kneecap and was described as "sharp and stabbing" as it came and went. The severity was 1/10. Sleep was on her usual schedule, and her anxiety has improved, rating it 1/10. The patient only revealed the tip of her tongue. The tip was red, there was no coat, and the fissures appeared more as shallow cracks. The right radial pulse was slightly irregular, thin, and weak, with the guan position having the most robust quality. The left radial pulse was thin, thready, somewhat wiry, and overall weak in quality in all positions.

Treatments	Treatment 1	Treatment 2	Treatment 3	Treatment 4
Pain location and quality	Bilateral numbness in legs	Bilateral numbness in ankles to toes	No pain	Numbness in the left foot to kneecap
Pain severity (pre-treatment)	"Immense"	"Very immense"	"Things are a lot easier."	1/10
Pain's impact on sleep	Usual sleep schedule	Improved sleep with pleasant dreams	Usual sleep schedule	Usual sleep schedule
Anxiety	"Body racing"	"Looping thoughts"	"shakiness"	1/10, nervous and worried

Table 1. Patient's pain timeline

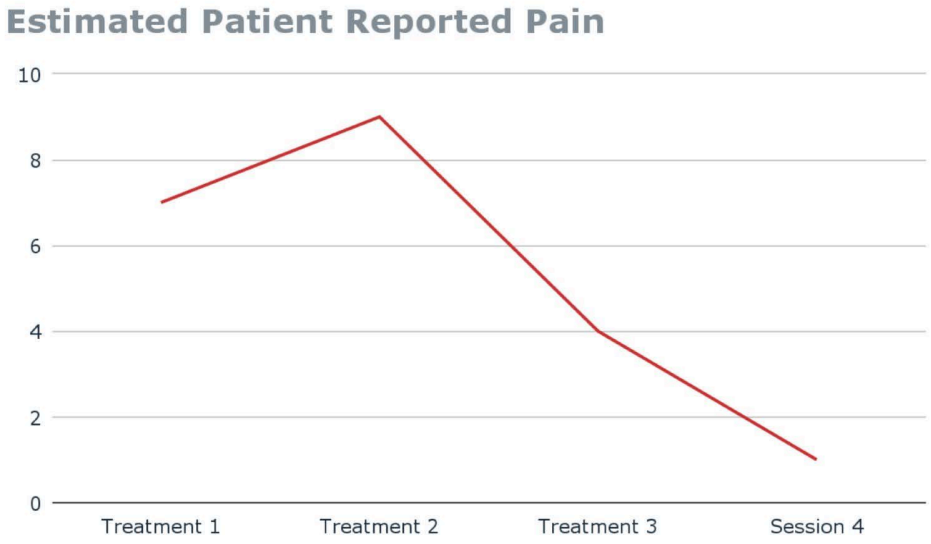

Figure 1. Patient-reported pain 1-10, with 10 being the worst

TCM Diagnosis and Etiology

Treatment 1

Liver blood deficiency and Spleen qi deficiency with underlying Liver qi stagnation and Heart yin deficiency were determined. In this case, Liver blood deficiency manifested as a lack of nourishment to the skin, resulting in lesions. In TCM, the Liver houses blood derived from gu (nourishing) qi the Spleen produces. The Spleen sends the gu qi to the Lung system, then the Lung qi

propels gu qi to the Heart, where gui qi transforms into blood. The Heart governs the blood. If Heart blood is deficient, the shen (spirit) will no longer be rooted, and the person will suffer anxiety and insomnia. Blood follows qi, and with the stagnation of Liver qi, there is little to no movement of blood.

Blood deficiency had caused early waking and numbness in the feet. A thin and weak pulse reflected the reduction of blood circulation's ability to fill the vessels. Spleen qi deficiency affected the appetite and contributed to malnourishment of the tissues and general lassitude. Yin deficiency led to internal heat, disturbed shen, and poor sleep. The Heart houses the spirit and only functions well when nourished with blood and yin.

Treatment 2

Liver disorders affect the free flow of qi and the Spleen's ability to transport and transform. The Liver acting on the Spleen is a classic example in the five-element theory of wood invading earth. The heat from underlying stagnation and yin deficiency consumes more yin and qi and leads to shen disturbance. If Liver blood is deficient, the sleep will be restless since the Liver blood houses the hun, and the hun provides peaceful sleep. There are overlaps in Heart blood and Liver blood when it comes to sleep pathologies.

The "looping thoughts" described by the patient were a sign of Spleen qi deficiency and disturbance of the yi. The etiology described above fits the patient’s presentation in Treatment 2.

Treatment 3

The previous shen disturbance had subsided, and there were fewer signs of Liver qi stagnation. The diagnosis was Spleen qi deficiency and underlying Heart yin deficiency. With numbness and pain no longer being primary complaints, the diagnosis no longer included blood deficiency or Liver qi stagnation. As mentioned earlier, the Heart governs the blood, and the Spleen is the source of blood and qi. The patient continued to present with malnutrition of the yi from Spleen qi deficiency, showing as muscle weakness, lassitude, and worries.

Treatment 4

The diagnosis was Spleen qi deficiency, Kidney qi deficiency with shen disturbance, and underlying Heart yin deficiency. The red tip of the tongue reflected heat in the Heart, the house of shen.

From the Spleen qi deficiency, an insufficient quantity of clear yang gets produced, interrupting the exchange with turbid yin. Turbid yin cannot descend and then obstructs the head. Uncontrolled heat or fire from the Heart sinks and consumes the Kidney yin or water, which cannot cool the Heart. If not subdued, the level of Heart fire continues a cycle of yin deficiency in the Heart and Kidney organ systems. For each visit, both an acupuncturist and a chaplain were present and provided dual treatments to the patient. The acupuncturist was a doctoral candidate with three years of licensed experience, and the chaplain had over a decade of experience in spiritual care, six years of education, including a Master of Divinity, and two years in the medical setting.

The treatments lasted between 30 and 60 minutes of direct time with the patient. At each treatment, the patient gave written consent. Chlorhexidine was used to prep the skin. The needles used to perform the acupuncture were MAC brand, sterile, single-use, and in sizes .22x30mm and .20x15mm. The depth of needles varied; needle retention time ranged between 30 and 40 minutes. The patient received dual treatment sessions on two consecutive days and twice in one week, totaling four treatment sessions while in the hospital.

Therapeutic Intervention

Treatment 1

The patient retained 11 needles for 25 minutes, as described below in Table 2. The spiritual care provider spent 60 minutes with the patient during and after the acupuncture treatment. The provider engaged in empathic listening and exploration of the patient's spirituality, including the patient's relationships, values, beliefs, and emotions. Through this, providers learned that the patient was Catholic and had strong beliefs about God's goodness and healing power and that the patient deeply valued being a mother to her sons and her dogs. The patient expressed spiritual pain around disconnection and conflict in her relationships with her sons and the sense of isolation and helplessness she was experiencing in the hospital. She also shared that her ongoing pain and anxiety were making it difficult for her to engage with her spiritual resources, leading to a sense of disconnection in her core relationship with God. The patient reported that her faith was a primary spiritual resource and that reading scripture and prayer strengthened her sense of peace, hope, and connection to God.

In response, the patient and chaplain worked together to identify ways to reconnect with God, including praying together and utilizing a daily devotional book, which the patient claimed helped her feel more connected to God. The patient also reported that the providers' empathy and active listening increased her sense of support and community. Post-treatment, the patient said she had "lots" of pain relief. Her left foot had less numbness and improved range of motion (ROM). The anxious feeling of her "body racing" disappeared. From the acupuncturist's perspective, the patient was lucid and spoke throughout the treatment.

Treatment 2

The patient retained 17 acupuncture needles for 35 minutes. Although she appeared down at the beginning of the treatment, she lit up and seemed joyful as she described her "fur babies" to the providers. She expressed her value of loving and caring for others and named her pets as both a source of comfort and a space for her to practice this value. Being away from the comforts of home is a significant challenge; the patient had a self-placed internal pressure to heal and return home as quickly as possible. She could articulate emotions of worry, fear, nostalgia, longing, gratitude, and pride as she reviewed her life before the hospital stay. From the chaplain's perspective, the patient longed for connection, comfort, and healing and was struggling with her sense of self-efficacy and guilt around not being able to care for herself and others the way she valued. She was encouraged by positive validation of self-care and recognition from herself and others regarding her improvement. Talking about her dogs provided both a positive distraction from pain and a reminder to the patient of an area of caregiving in which she felt capable and proud.

Post-treatment, the "pins and needles" sensation improved to a "light throbbing" sensation. Her ROM improved in both feet with less pain. Emotionally, her thoughts had "slowed down." The patient felt more supported and less anxious and worried. She shared her hope for further combined acupuncture and spiritual care visits.

Treatment 3

The patient retained eight needles for 30 minutes. Her chief complaints were her mood, the difficulty in overcoming her anxiety, fear, and exhaustion in her continued stay at the hospital, and the level of personal pain. The chaplain noted worry, fear, fatigue, and impatience weighing heavily in the tone of the patient's voice. She was most worried about how she would continue navigating her health and healing. Both practitioners encouraged her that she

had done well in navigating it thus far and could continue. The patient shared her "high anxiety" about wound care and fears about the pain worsening and not healing completely. The chaplain read the patient's Daily Bread devotion and discussed patience, courage, and God's timing; these items deeply resonated with her. The chaplain held her hand while exchanging words of encouragement, connecting her to a source of comfort and her belief system around her healing and God's provision. Post-treatment, the patient once again described the pain relief as "lots," shared her gratitude, and said she felt "in a much better place," more relaxed, and less anxious.

Treatment 4

The patient retained five needles over 30 minutes. KD3 (Taixi) and Yintang fell out due to the patient's movements. The acupuncturist performed acupressure on the patient's left hand as the patient was tearful about her impending transfer to another medical care facility. She was processing fears about transferring hospitals and "starting over" in building trust and rapport with a new team of providers. The patient's current main struggle was coping with impatience and exhaustion concerning her healing and time in the hospital. With the chaplain, she read the Daily Bread devotional about God putting back together the broken pieces. She shared her belief in this concept and discussed her questions concerning her healing process. She wanted to be hopeful but noted a sense of injustice and weariness. Together with the chaplain, she prayed and lamented about the ongoing stay at the hospital, future hopes of healing, and the strained relationships with her children at home. The resource of devotional prayers did bring some resolve and calmness. The patient also reported it was helpful to verbalize the pain caused by the disconnection in her relationship with her children and her feelings of isolation in the hospital. She enjoyed the sense of connection, support, and relief she got from the simultaneous treatments. The external validation of the patient's worth and self-efficacy helped foster internal validation and confidence.

Acupoints	Treatment 1	Treatment 2	Treatment 3	Treatment 4
Left	Auricular Battlefield Protocol (Cingulate Gyrus, Neurogate, Omega Point 2, Point Zero, Thalamus Point), GB13 (Benshen)	Auricular Battlefield Protocol (Cingulate Gyrus, Neurogate, Omega Point 2, Point Zero, Thalamus Point)		KI3 (Taixi), Auricular Kidney Acupressure: SI3 (Houxi), LI4 (Hegu), HT7 (Shenmen)
Right	LI4 (Hegu)	LI4 (Hegu), HT7 (Shenmen)		
Midline	Du 24 (Shenting)	Du 24 (Shenting), Ren17 (Danzhong)	Du 24 (Shenting), Yintang	Du 20 (Baihai), Du 24 (Shenting), Yintang
Bilateral	ST8 (Touwei)	Bafeng	GB13 (Benshen), ST8 (Touwei), Auricular Neurogate	

Table 2. Acupuncture points in treatments 1-4

Follow-up and Outcomes

The day after the last treatment, the patient underwent a split-thickness skin graft of the posterior thighs and buttocks. The removal of the epidural occurred four days post-surgery. Daily wound care then transitioned appropriately as the wounds began to heal. Her suboxone was restarted daily, with breakthrough suboxone given as needed. The patient was frequently noncompliant with turning in bed and self-wound care. However, Physical and Occupational Therapy noted "significant (ROM)" twenty days post-surgery. Medihoney, Mepilex, and Sage Boots were recommended for the wound care of the patient's right heel. The patient admitted wound care of the surgical wound to "be difficult" due to limited mobility and the inability to reach the wound herself. Three and a half months post-surgery, the patient was discharged from the current facility to another facility with rehab medicine, wound care, and multimodal pain management.

Discussion and Conclusion

Both acupuncture and spiritual care interventions have few risks or adverse effects. Due to scheduling and patient loads, the acupuncturist and chaplain could only provide four treatments before the rescheduled autografting surgery.

The patient preferred to describe the pain rather than use the Numerical Pain Scale for pre- and post-treatment scores. Pain, like anxiety and the condition of the spirit, is a subjective and personal experience. To be effective, the care team must align pain management to an individual's needs. A biopsychosocial spiritual approach to pain includes an examination of both how pain impacts a

person's spirit and how their spirituality impacts their pain. It examines the relationships, values, and beliefs that encompass a person's sense of spirituality and is attentive to how these positively or negatively impact the person's pain experience (Siddall et al., 2015). How the whole health of patients impacts the management of biopsychosocial and spiritual pain is a complex question worth exploring.

In the case of this patient, her lengthy hospitalization and sense of disconnection from others and her own inner resources contributed to the pain in her spirit, which in turn impacted her ability to cope with the physical pain caused by the infection. Prior to getting acupuncture along with spiritual care, the patient had been in decline and unable to access her internal resources. The providers described how the patient seemed able to relax and be open to spiritual care directly following the acupuncture intervention. After receiving these combination treatments, the patient was more engaged with her overall care, reported decreased pain and anxiety, and endorsed a greater sense of connection and well-being. Of note, the acupuncturist and the chaplain worked well together. Timing and provider rapport may be key to effective collaboration of this type. While it is difficult to pinpoint the direct impact of each intervention on the patient's well-being, this case shows promising results that warrant more research on the combination of spiritual care and acupuncture interventions.

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Disclosure Statement

The author reported no conflicts of interest.

Informed Consent and Statement of Safety

The patient was explained and signed an informed consent agreement, which was given to the hospital administration.

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Managing Pain from Multiple Bone Fractures Using Acupuncture and Spiritual Care: A Case Report

Abstract

Managing pain following severe trauma such as bone fractures from a motor vehicle accident (MVA) poses a significant challenge, especially in patients with complex medical histories. This case report describes integrating acupuncture and spiritual care with standard medical treatment in managing post-surgical pain in a 60-year-old male patient with multiple fractures and a history of opioid use disorder (OUD).

The patient experienced extensive fractures from a drunk driver MVA affecting his left lisfranc joint, proximal phalanges, medial cuneiform, dorsal talus, fibular head, septal area, left sacral ala, and right posterior iliac. His medical background included conditions like colon adenoma, chronic hepatitis C, cirrhosis, an elevated cancer risk, portal hypertension, and issues related to his right wrist, among others. He underwent surgery including irrigation and debridement, and ORIF for his left foot injuries. Considering his history of opioid use disorder (OUD), a unique pain management strategy was adopted.

Beyond standard post-operative care, the patient received three sessions of tandem acupuncture and spiritual care over a period of nine days starting from the day after surgery. The interventions led to significant improvements in pain, allowing for reduced reliance on medication. The patient showed enhanced scores in all outcome measures, indicating better pain control, emotional well-being, and overall quality of life. He was discharged feeling confident, supported, and empowered, demonstrating the potential of acupuncture and spiritual care in complementing conventional medical treatments.

Keywords: pain, integrative medicine, fractures, acupuncture, spiritual care, case report

Introduction

Effective pain management first assesses the patient as a whole being, both biopsychosocially and spiritually. Spiritual and emotional distress in patients has been linked to a number of negative health outcomes, such as higher levels of pain and pain catastrophizing (Harris et al. 2018), depression, anxiety, and a negative sense of well-being (Abu-Raiya et al. 2015). Conversely, attention to spiritual needs has been tied to better pain control, increased pain tolerance, increased ability to cope with and integrate pain experience, and a greater sense of connection and support (Siddall et al., 2015). Despite these findings, the spiritual and emotional dimensions of pain are not addressed within the field of pain management. In this case, an acupuncturist and chaplain partnered to provide holistic care to a patient who was referred to the Acute Pain Service (APS) team due to difficulty managing pain. The patient was experiencing high anxiety and was dissatisfied with pain control. The patient had a remote history of substance use and had concerns about the impact of his current pain on maintaining his nearly 15-year sobriety, making non-pharmacological pain interventions critical for him. After three combined treatments of acupuncture and spiritual care, the pain and anxiety of the patient decreased; the patient experienced better pain control with less medication; rapport and communication between patient and team were increased; and the patient was able to confidently discharge from the hospital.

Patient Information

A 60-year-old male on his motorcycle was hit by a drunk driver, resulting in fractures to his left lisfranc joint, first proximal phalanx, and base of the second proximal phalanx, as well as fractures of medial cuneiform and dorsal talus, left fibular head, and a closed septal fracture. On the following day, he had irrigation and debridement of the left foot, open reduction and internal fixation (ORIF) of his left metatarsal fractures, and a tarsometatarsal joint reduction.

Nine days post-surgery, dual treatments began. Ten days post-surgery, an MRI revealed fractures to the left sacral ala and right posterior iliac. The patient's medical history included a past opioid use disorder (OUD) from almost two decades ago. The patient’s history included colon adenoma, chronic hepatitis C, cirrhosis of the liver, elevated risk of cancer, portal hypertension, elevated liver enzymes, post-traumatic arthropathy, right wrist pain and stiffness, scapholunate advanced collapse (SLAC) of the right wrist, and a closed fracture of the mandible. The patient disclosed having a preexisting mass behind his

left eye and that he sometimes had floaters and double vision. While in-patient at the hospital, in addition to standard care, the patient received three combined treatments of acupuncture and spiritual care to manage pain.

Clinical Findings

Treatment 1 (9 days post-surgery)

Pain was constant and rated 4/10 (with 10 being the most intense). Primarily, his left foot felt "like it is on fire." He described his right foot as not being painful but still feeling as if it was "on fire." Internal heat was felt throughout his body, and his skin felt warm. The night prior, he had night sweats and was cold. The right hip and lower back pain was rated 3/10 and described as "constant." During the treatment session, a transcutaneous electrical nerve stimulation (TENS) unit was used on his lower back. The facial pain from the closed septal fracture felt "full and swollen," rated 2/10. Movement was painful, and breathing was difficult. His right ear felt "plugged and tight." The patient had trouble falling asleep and staying asleep. He reported nightmares, their theme being that people did not believe his intense pain. Anxiety was intermittent. When the anxiety was "high," he explained the feeling as "uncontrollable" and "there is an urge to want to run from the feeling." During the intake process, the patient was visibly distraught, crying without shame in several episodes of emotional release. There were bruises on the right hip and lateral thigh on the Gallbladder and Urinary Bladder meridians.

The quality of the pulse on the left wrist was thin and wiry. The cun position was the strongest. The pulse in the guan and chi positions was less robust and deeper from the surface. The right wrist was not available for palpation. The tongue was thin and long, reddish to lavender in color, with a red tip and no coat. Small, deep cracks all over the body of the tongue and veins were visible underneath.

Treatment 2 (10 days post-surgery)

The primary pain was in the left knee. Secondary pains were in the left foot, right hip, lower back, and the broken nose. The left ear canal felt tight and closed. His right foot no longer felt hot. The pain was "achy, not throbbing," especially in the left knee. The knee pain was "old and deep," and the weather commonly affected it. Overall, the pain was rated as 4/10. He had woken up in the middle of the night without pain or night sweats. He again had vivid dreams tied to present events. The patient's anxiety "comes and goes in

waves." Only the right wrist was available for palpation. The pulse was tight and wiry. The tongue had a red body, appeared dry with no coating, and had a sizable, deep fissure in the middle with small cracks branching outward.

11 days post-surgery

No treatments involved acupuncture or spiritual care on this date. MRI results revealed moderate central stenosis in L2-L3 and L4-L5 and fractures of the left sacral ala and right posterior iliac. No surgical intervention was necessary. The patient spoke to other members of his clinical team about spiritual care and acupuncture treatment, reporting significant benefits for his pain management. Per his pain medicine doctor, the team was able to halve his ketamine dose as a result of this treatment without distress to the patient.

Treatment 3 (18 days post-surgery)

Overall pain was 7/10, mainly in the left foot, described as "pressure" on the top of his toes radiating into the left foot and the bottom of the left foot near the arch. The quality was "intense and shooting" in 30-minute intervals. Secondary pain in the right hip radiated to the iliotibial (IT) band, and the outer edge of the right knee was described as "constantly achy." Sleep was "all right" the night prior, without dreams or night sweats. The patient rated 8/10 for anxiety, as he expressed a "nervousness" about being discharged. The left pulse was wiry and tight, while the right was wiry and slower. The tongue was red and dry, with the tip deviated slightly to the right. The fissures on the tongue were horizontal and less profound than in the last encounter.

TCM Clinical Diagnostic Assessment

Treatment 1 (9 days post-surgery)

The diagnosis was Liver blood stasis with shen disturbance and underlying Kidney yin deficiency. Part of the etiology is based on the TCM maxim: blood follows qi. The trauma to this patient's body created a lack of movement of Liver qi, then the blood stagnated. Blood stagnation was reflected in the tongue, the pulse, bruising on the thighs, and constant pain. Liver stagnation led to disruption of the Heart spirit, or shen disturbance. The Heart (shen) disruption was seen in the multiple emotional releases and feelings of anxiety, nervousness, and over-excitement (sometimes translated as excess joy in TCM). Kidney spirit (zhi) disturbance manifested as fear. The underlying Kidney yin deficiency added to the Liver stasis as the Kidney essence supports Liver

blood. In the five-element theory, this is water not nourishing wood. The quality of the pain felt different than before the crash; his knee pain was from older injuries. His internal heat was reflected in the tongue, pulse, skin, and night sweats.

Treatment 2 (10 days post-surgery)

Liver blood stasis with Heart shen disturbance were the diagnoses. Night sweats no longer occurred as yin deficiency improved. The dryness and cracks in the tongue continued to reflect a lack of yin fluids, although dryness is a common side effect of pharmaceutical analgesia in a hospital setting. The spirit was less disturbed as the patient's emotional state improved, but vivid dreams remained. Obstruction of vessels from blood stasis still prevented qi from circulating, as evidenced by the tight and wiry pulse.

Treatment 3 (18 days post-surgery)

For this treatment, Liver qi stagnation and shen and zhi disturbances were the diagnoses. Pain resulted from the stagnation of Liver qi. The blood stasis of the Liver meridian had improved as the patient healed over the last week, opening the vessels for the movement of qi. His emotional state was due to disruption of the Heart and Kidney spirits, the shen and the zhi. However, the intensity of the disturbance of the spirits was far less than in previous encounters, as the patient slept more soundly and was not disturbed by dreams. The spirits were more nourished by qi and blood within the organ systems that housed them, giving them strength.

	Treatment 1	Treatment 2	Treatment 3
Diagnoses	Liver blood stasis with shen and zhi disturbance and underlying Kidney yin deficiency	Liver blood stasis diagnosis with Heart shen	Liver qi stagnation, shen and zhi disturbance

Table 1. TCM diagnostic assessments

Therapeutic Intervention and Outcomes

The patient received dual comprehensive treatments per visit from both the acupuncturist, a doctoral candidate with three years of licensed experience, and the chaplain, with over a decade of experience in spiritual care, six years of education, including a Master of Divinity, and two years in the medical setting. The treatments lasted between 30 and 60 minutes of direct time with the patient. Written consent was obtained at each treatment.

Chlorhexidine was used to prep the points on the body, and MAC, single-use, sterile needles of 0.22 x 30 mm and 0.20 x 15 mm were used in the acupuncture treatment on the chosen points of the patient's body. The depth of needles varied, and the needle retention time varied between 30 and 50 minutes. Electrical stimulation (e-stim) was applied with the Electrostimulator 6C Pro from Pantheon Research.

Treatment 1 (9 days post-surgery)

The patient retained 10 needles for less than 45 minutes, as described below in Table 2. The right ST36 (Zusanli) was inserted using a 0.22 x 30mm needle about 15mm in depth and removed after the first 5 minutes, as the patient could not keep his leg still. In addition to the acupuncture, the left ear lobe had manual manipulation performed by pulling downward and distally from the body as the patient opened and closed his jaw. Acupressure was applied in 3- to 5-minute intervals on pairs of points on the patient's right leg.

The chaplain engaged the patient in a spiritual care session for over an hour during the acupuncture session. Though the patient had shared some feelings of mistrust towards his pain management team, he reported that spirituality was important to him and seemed to open up to the chaplain and acupuncturist easily. The patient and chaplain explored his anxiety, during which the patient engaged in a life review around the traumas, grief, spiritual awakenings, and the journey through substance use and recovery that he had experienced over the past 20 years. The patient was able to identify how these past experiences contributed to worries around death that had arisen in the context of his crash, as well as fears around returning to substance use disorder (SUD) now that he was requiring more pharmacologic pain management.

Through exploration of the patient’s recurring nightmares, he was also able to identify distress around having his pain not be believed or validated by others. In addition to exploring distress, the chaplain guided the patient through a discussion of his spiritual resources and values. The patient named family and recovery as essential values and parts of his well-being and named his accountability network, nature, plants, animals, motorsports, and authentic connection with others as key resources.

The patient was frequently tearful throughout the visit, especially as he shared about his family and processed his fears and worries. At the end of the visit, he reported feeling as if he had experienced a "huge emotional release" and

feeling decreased pain. He stated, "If you both had not been here, I would have been thinking about my pain and fear all day." In addition to this emotional release, the visit helped the patient and team build rapport and uncover a spiritual narrative that could serve as a foundation for future support. The patient affirmed a desire for further joint acupuncture and spiritual care visits the next day.

Treatment 2 (10 days post-surgery)

The patient retained six needles for 43 minutes, as described below in Table 3. LR14 (Qimen) on the right was tapped in, although not retained due to the patient's preference. This sensitivity of the ribs reflected the condition of the liver qi. The e-stim was low frequency and high intensity, adjusted to the patient's preference, on acupoints on the right side of the scalp. Two 0.22x30mm needles were inserted and electrically stimulated points on the upper ⅕ of the sensory scalp line and were chosen to contralaterally treat the patient's left lower back or lower limb. 5Hz of continuous stimulation at the intensity of 2.5 was applied, then turned down to 2 as the treatment began. Fifteen minutes later, the stimulation was changed to discontinuous at 5Hz with the intensity of 2 turned down slightly to an estimated 1.8. The patient described this sensation as heavy "tapping" but still tolerable. Ten minutes later, the patient described it as being much less intense, although he preferred there not to be an increased adjustment of intensity. Another ten minutes later, the e-stim machine was turned off, and all needles were removed. During this treatment session, the acupuncturist applied 3 to 5 minutes of acupressure. The patient continued to keep the TENS units on his lower back running and engaged with the chaplain in spiritual care.

During the hour-long encounter of spiritual care, the patient stated that he had experienced a "huge decrease in pain and anxiety" following the session the day before. He voiced amazement that he had "slept well and without pain for the first time in years." He named the joint acupuncture and spiritual care visit as the catalyst for his pain relief, "emotional releases," ability to process his anxiety verbally, and sense of support and well-being. In this visit, the patient and chaplain built on their previous discussion by diving deep into his longing for his family support system, his resources for maintaining sobriety, and his concerns about the future. They also continued to explore the patient's dreams and the insights the patient was gleaning about how these dreams were connected to anxieties and realities in his waking life.

The patient's primary points of distress were around his fear of returning to substance use disorder, concerns about present social support, and pain

invalidation. He expressed deep gratitude for the space held by the chaplain and acupuncturist for encouragement, companionship, and validation and asked for as many visits as possible.

At the end of this treatment, he reported little to no pain or anxiety and a strong sense of well-being. The patient claimed to have received "lots" of relief, especially regarding breathing. He rated his pain in the left foot as 1/10, his left knee as 2/10, his right hip as 0/10, and his face as 1/10. He explained the feeling in his left ear as "tight" but improved. Both legs had an increased range of motion according to the patient's ability to readjust. The left knee had improved ease of flexion. His anxiety was a 1/10 and intermittent. He added that the combination of spiritual care and acupuncture had helped immensely with pain. The support was helpful and something he looked forward to while in the hospital. The acupuncturist and chaplain assessed the patient as a verbal processor and observed that the more he expressed emotions and traveled freely through different subjects, the better his outlook became.

Treatment 3 (18 days post-surgery)

The patient retained six needles for 30 minutes, as described below in Table 2. In addition, acupressure was applied to SI3 (Houxi) and LI4 (Hegu) and then to HT7 (Shenmen) and PC6 (Neiguan) for 3 to 5 minutes. By the end of treatment, the acupuncturist observed a marked attitude adjustment from the patient. The patient had made goals, addressed all significant anxieties, and had resources provided before discharge.

The chaplain spent ninety minutes between direct and indirect time with the patient, as they discussed the causes of his anxiety, centered on unreadiness and fear around discharge and how he will care for himself post-discharge. The rapport built through previous sessions allowed the patient to communicate his concerns openly. They processed these concerns, working together to address each one and compiling a list of questions for the care team. The chaplain facilitated communication between the patient and other members of his clinical team in order to ensure that these questions were addressed.

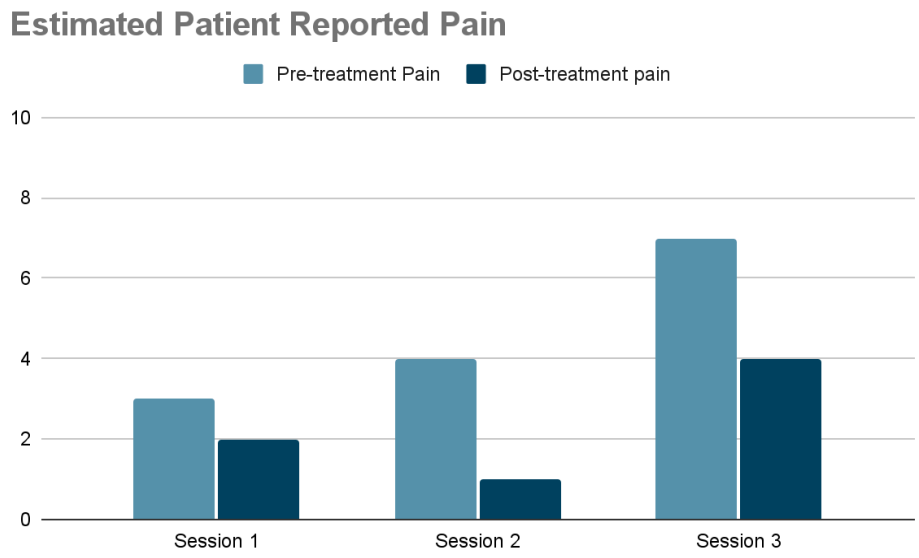
Following these interventions, the patient stated greater confidence in his discharge readiness and a greater sense of self-efficacy in his ability to care for himself. The patient shared gratitude for the integrative treatment sessions. Post-encounter, the patient reported 4/10 pain and "very low" anxiety. He was able to discharge home later that day comfortably.

Acupoints	Treatment 1	Treatment 2	Treatment 3
Left	Auricular Battlefield Protocol (Cingulate Gyrus, Neurogate, Omega Point 2, Point Zero, Thalamus Point)	Acupressure on ashi points on the lateral and medial to the patella	
Right	ST 36 (Zusanli) Acupressure on GB34 (Yanglingquan), GB42 (Diduhui), UB 62 (Shenmai), KD 3 (Taixi), ST 36 (Zusanli), and GB 31 (Fengshi)	Upper 1/5 of the sensory scalp line Acupressure on LR3 (Taichong)	Auricular: Shenmen Acupressure on SI3 (Houxi), LI4 (Hegu), HT7 (Shenmen), and PC6 (Neiguan)
Midline	Du 24 (Shenting), Ren 17 (Danzhong)	Yintang	Du 24 (Shenting)
Bilateral	LI 20 (Yingxiang) to Bitong; Du 24 (Shenting); Ren 17 (Danzhong)	LI20 (Yingxiang) to Bitong (Nose Passage); LR14 (Qimen)	GB13 (Benshen), ST8 (Touwei)

Table 2. Acupuncture points in treatments 1-3

Pain and anxiety variables	Treatment 1	Treatment 2	Treatment 3
Pain location and quality	Both feet, right hip, low back, face	Primarily, left knee is achy. Secondary to left foot, right hip, and face	Left foot feels intense Right hip is achy
Pain's impact on sleep	Trouble falling and staying asleep, with nightmares	"I slept well and without pain for the first time in years."	Slept "all right"
Pretreatment pain severity	2-4/10	4/10	7/10
Pretreatment anxiety	Intermittent	Higher than he would like	8/10
Post-treatment pain relief	"Moderate"	"Lots"; left knee 2/10; left foot 1/10; right hip 0/10; face 1/10	"Lots" 4/10
Post-treatment anxiety	Improved	Intermittent 0/10 to 1/10	"Very low"

Table 3. Patient outcomes



Graph 1. Estimated patient-reported pain

Follow-up

26 days post-final treatment

The patient returned to the hospital for a follow-up with a physician for his second post-operative visit. He reported doing exceptionally well relative to his previous visit and hospitalization. He reported improved pain, especially in his right lower extremity. The recommendation was that he continue to be in a posterior foot splint and remain non-weight-bearing for at least six weeks, adding to a total of 12 weeks. Per the pelvis team, no activity restrictions were necessary for his pelvic ring injury. Contrary to the clinical team's concerns, the patient was not re-admitted to the hospital and was able to adhere to the outpatient plan without complications.

Discussion

This report intends to show the implications of combining acupuncture and spiritual care services to modulate pain in tandem with the standard of care. Both modalities, biopsychosocial and spiritual, view the patient as a whole person and take into account the patient's unique circumstances and emotional and spiritual needs. Attention to spirituality in pain management

has been linked to pain reduction, lower levels of pain catastrophizing, and improved physical and cognitive function (McCabe et al., 2018). Interventions of pain validation and compassionate support, as used with this patient, have been said to decrease pain and stress and increase patient/provider trust and ability to process emotion (Nicola et al., 2022).

Pain is multidimensional; management of it should be, too. For this patient, much of his pain was related to anxiety, fear, and spiritual distress. Part of this spiritual distress centered on fears of loss of identity and disruption to his values around sobriety, which he saw as threatened by his need for narcotics to treat his acute injuries. Though he reported being unsatisfied with his pain control prior to these sessions, his clinical team was able to continuously decrease pharmacologic pain management interventions while seeing an increase in his pain control satisfaction after the joint acupuncture and spiritual care treatments.

Acupuncture and electroacupuncture (EA) modulate the sympathetic nervous system (SNS), stimulate an endogenous opioid release, and inhibit central sensitization. Activated by EA, norepinephrine stimulates the pathway of serotonin, which downregulates glutamate receptor 1 (GluN1) and thus decreases the expression of N-methyl-D-aspartate (NMDA) receptors (Lin, et al., 2020). Ketamine's role in pain management is as an antagonist of GluN1 at the NMDA receptors (Orhurhu, 2023).

These treatments both allowed the patient to decrease the medications that were adding to his spiritual distress, thus also decreasing the distress that was contributing to his overall pain. There were no adverse effects. Due to scheduling and patient loads, the acupuncturist and chaplain could only provide three treatments. The relief felt after the acupuncture and spiritual care prepared the patient to be safely discharged from the hospital. It is possible that these treatments also contributed to the patient's ability to adhere to his outpatient care plan and remain out of the hospital despite provider concerns.

Conclusion

Acupuncture and spiritual care can provide relief of pain, decrease the use of medication, and promote patients' overall well-being in biological, psychological, social, and spiritual health. The combined treatments increased the patient's feelings of support, built trust between the patient and the medical team, and allowed for the examination and treatment of the patient's

holistic pain. After three treatments over nine days, the patient recovered with less medication, showed improved scores in all outcome measures, and was discharged feeling confident, supported, and empowered. The promising results of this case indicate a further need for research into the combination of acupuncture and spiritual care as a nonpharmacologic treatment for pain management.

Informed Consent

The patient gave informed consent for this case report.

Conflicts of Interest

Neither author had any conflicts of interest.

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