

Section: General Nursing

Acupressure at *Yintang* and *Chengjiang* points to reduce tachycardia in patient with arrhythmia

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Abstract

Arrhythmia is a cardiac rhythm disorder that can affect patients' quality of life. Complementary approaches such as acupressure provide non-pharmacological alternatives to help reduce arrhythmia symptoms. The case study aimed to analyse the effectiveness of acupressure therapy at the *Yintang* and *Chengjiang* points in managing patients with arrhythmia. A descriptive case study was conducted on one arrhythmia-diagnosed patient at Tulip 2 ward of Soerojo Hospital, Magelang. Acupressure intervention was administered for three consecutive days, with monitoring of vital signs and subjective complaints. There was a decrease in complaints of palpitations and chest pain, as well as stabilization of vital signs after the acupressure intervention. Acupressure at *Yintang* and *Chengjiang* points had a positive impact on the physiological stability of arrhythmia patients and can be considered as a complementary nursing intervention.

Keywords: Arrhythmia, acupressure, *Yintang*, *Chengjiang*, complementary therapies, nursing care

Introduction

The management of cardiac arrhythmias, particularly tachycardia, remains a complex challenge in clinical practice due to the potential for hemodynamic instability and patient distress (Kingma et al., 2023). While pharmacological treatments like beta-blockers and calcium channel blockers are standard, they often carry a risk of side effects that may not be well-tolerated by all patients (Wotowiec et al., 2023). Consequently, there is an increasing interest in integrative nursing interventions that can provide rapid, non-invasive stabilization of the heart rate (Machado et al., 2025). Acupressure, a derivative of Traditional Chinese Medicine, involves the application of physical pressure to specific points on the body to stimulate the autonomic nervous system (Mehta et al., 2016). This case study focuses on the application of pressure at the *Yintang* and *Chengjiang* points as a targeted strategy to alleviate tachycardic episodes. These specific points are theorized to influence the vagus nerve, thereby promoting a parasympathetic response that can counteract sympathetic overactivity (Chen & Liu, 2025). By examining the immediate physiological responses to this intervention, we can better understand its potential as a bedside rescue technique. The primary goal of this case report is to document the efficacy of manual stimulation in reducing heart rate and restoring a sense of calm in a patient experiencing an arrhythmic event. As the demand for patient-centered, holistic care grows, the role of acupressure in acute cardiac management warrants closer clinical scrutiny (Düzel et al., 2023). This introduction sets the stage for a detailed analysis of how targeted pressure can serve as a bridge between conventional and complementary medicine.

The *Yintang* point, located midway between the medial ends of the eyebrows, is traditionally associated with calming the mind and reducing systemic stress (Kwon & Lee, 2018). In the context of cardiac care, stimulating *Yintang* is believed to activate the prefrontal cortex and modulate the body's "fight or flight" response. This point is often referred to as the "Third Eye" and is frequently used in clinical settings to treat insomnia, anxiety, and frontal headaches (Acar et al., 2023). Complementing this is the *Chengjiang* point, situated in the depression in the center of the mentolabial groove, just below the lower lip. *Chengjiang* is recognized for its ability to regulate the fluids of the mouth and, more importantly, its connection to the Ren meridian, which governs the sea of yin (Fabrin et al., 2016). When these two points are stimulated simultaneously or in sequence, they are thought to produce a synergistic effect that lowers arterial blood pressure and slows the sinoatrial node's firing rate. The physiological pathway likely involves the trigeminal-cardiac reflex, where sensory stimulation of the face leads to a reflexive increase in vagal tone. This increase in vagal activity is the hallmark of successful heart rate deceleration in patients with supraventricular tachycardia. By utilizing these points, a clinician can offer a physical intervention that requires no specialized equipment or expensive medication. This study provides a step-by-step account of how this manual technique was integrated into the care of a patient with recurring arrhythmia.

The clinical significance of utilizing acupressure for tachycardia lies in its accessibility and the immediate feedback it provides to both the patient and the practitioner. In many cases of arrhythmia, the patient's anxiety

regarding their heart palpitations creates a feedback loop that further elevates the heart rate. By providing a focal point for the patient's attention and a physical sensation of pressure, the nurse or therapist can break this cycle of escalating sympathetic arousal. This case study highlights a specific instance where traditional medical interventions were either contraindicated or required supplementation to achieve hemodynamic stability. It explores the patient's subjective experience of relief alongside objective telemetry data recorded during the acupressure sessions. The safety profile of *Yintang* and *Chengjiang* stimulation is exceptionally high, making it a viable option for elderly patients or those with multiple comorbidities. However, the exact pressure duration and intensity required for optimal results still need to be refined through rigorous case documentation and subsequent clinical trials. This report contributes to that refinement by detailing the specific protocol used and the subsequent normalization of the patient's cardiac rhythm. The integration of such techniques does not aim to replace standard cardiology but rather to enhance the toolkit available for holistic patient stabilization. Ultimately, this case serves as a foundation for further research into the neurophysiological mechanisms that link facial acupoints to cardiac conduction.

Case Description

This research employed a descriptive case study approach designed to thoroughly illustrate the application of complementary acupressure therapy in a patient with arrhythmia. The study focused on evaluating the clinical effectiveness of stimulating specific acupoints—specifically the *Yintang* and *Chengjiang* points—to reduce subjective complaints and stabilize the patient's physiological condition. This investigation was conducted at the Tulip 2 Inpatient Ward of Soerojo Hospital, Magelang, over a period of three consecutive days in October 2024. The subject of this study was an 18-year-old male patient clinically diagnosed with arrhythmia via electrocardiogram (ECG) and physical examination, presenting with key symptoms including chest pain, tachycardia, and significant sleep disturbances. The primary intervention centered on the application of acupressure to the *Yintang* (Ex-HN3) and *Chengjiang* (CV24) points, which are traditionally and clinically recognized for their influence on the autonomic nervous and cardiovascular systems. For the purposes of this study, arrhythmia was operationally defined as a heart rhythm disorder, such as tachycardia or bradycardia, resulting in abnormal heartbeats and potentially leading to decreased cardiac output. Acupressure itself was defined as a non-invasive therapy utilizing precise finger pressure on specific body points to restore energy balance and modulate autonomic function. The *Yintang* point is located directly between the eyebrows, while the *Chengjiang* point is situated on the midline just below the lower lip.

To ensure comprehensive data analysis, various collection techniques and instruments were utilized throughout the intervention period. Data was gathered through structured interviews to obtain subjective feedback before and after treatment, alongside direct observation and physical examination to monitor objective vital signs, including blood pressure, heart rate, respiratory rate, and body temperature. Clinical documentation, such as medical records, ECG reports, and nursing observation sheets, provided a secondary layer of data validation. The instruments used included a nursing assessment sheet based on the 13 NANDA domains, a vital signs observation form, an ECG report, and a standardized acupressure therapy guide, with olive oil utilized as a massage medium to facilitate the intervention.

Discussion

The clinical observation of heart rate reduction following the stimulation of *Yintang* and *Chengjiang* points suggests a potent interaction between cutaneous sensory input and autonomic regulation. In this case study, the patient's transition from a tachycardic state to a more stable sinus rhythm occurred shortly after the consistent application of manual pressure. This phenomenon can be explained through the activation of the parasympathetic nervous system, which acts as a natural brake on the heart's electrical conduction system. Specifically, the stimulation of these facial acupoints likely triggers the trigemino-cardiac reflex, a powerful brainstem reflex that results in bradycardia and reduced arterial blood pressure. By engaging the ophthalmic and mandibular branches of the trigeminal nerve, the acupressure intervention sends inhibitory signals to the sinoatrial node via the vagus nerve. This process effectively counteracts the sympathetic overstimulation often seen in patients suffering from cardiac arrhythmias and associated anxiety. Furthermore, the rhythmic nature of the pressure application may have helped entrain the patient's breathing, further stabilizing the heart's internal pacemaker. The immediate nature of the response in this patient highlights the potential for acupressure to serve as a rapid-response tool in acute clinical settings. Ultimately, the data indicates that targeted tactile stimulation can provide a measurable physiological shift that mimics the effects of certain anti-arrhythmic medications without the pharmacological lag time. This case reinforces the theory that the skin serves as a direct gateway to modulating deep-seated autonomic functions.

The selection of *Yintang* and *Chengjiang* points in this protocol was strategic, as both points are situated in areas of high nerve density and emotional significance. *Yintang*, located between the eyebrows, is well-documented in literature for its sedative effects and its ability to reduce the plasma concentration of stress hormones like cortisol. When the patient's anxiety was mitigated through *Yintang* stimulation, the secondary tachycardia—driven by emotional distress—began to subside. *Chengjiang*, located on the midline of the chin, provided a complementary effect by grounding the patient's sensory focus and addressing the "upward flaring" of energy described in traditional texts. The synergy between these two points created a holistic calming effect that addressed both the mechanical heart rate and

the patient's subjective experience of palpitations. It is noteworthy that the patient reported a sense of "heaviness" and relaxation during the procedure, which correlates with the shift toward vagal dominance. This shift is crucial for patients with arrhythmia, as it increases the refractory period of the atrioventricular node, potentially preventing the re-entry circuits that sustain tachycardia. The non-invasive nature of this technique also prevented the "white coat" hypertension often associated with more aggressive medical interventions. By maintaining a calm environment and using precise manual techniques, the healthcare provider was able to facilitate a state of physiological coherence. This case demonstrates that the integration of traditional points into modern cardiac monitoring can yield a more nuanced approach to patient stabilization.

While the success of this intervention is promising, it is essential to consider the limitations of a single-subject case study and the variables that might influence the replicability of these results. The patient's baseline sensitivity to acupressure and their prior belief in complementary medicine may have enhanced the placebo component of the treatment, although the objective telemetry data remains significant. Future applications of this protocol should ensure that the pressure applied is consistent in both duration and intensity to maintain clinical validity. It is also important to note that while acupressure successfully reduced the heart rate in this instance, it does not treat the underlying structural or electrical pathologies causing the arrhythmia. Therefore, this technique should be viewed as a supportive measure rather than a standalone cure for complex cardiac conditions. The provider's skill in identifying the exact anatomical locations of *Yintang* and *Chengjiang* is also a critical factor in the intervention's success. Training nursing staff in these techniques could provide a low-cost, high-impact method for managing mild to moderate tachycardic episodes on the ward. Moreover, the lack of side effects makes this an ideal intervention for patients who are already on polypharmacy and at risk for drug-drug interactions. As we move toward more integrated models of care, documenting these specific point-successes is vital for building a robust evidence base. This discussion underscores the need for larger, controlled trials to determine the optimal "dosage" of acupressure for various types of cardiac irregularities.

Conclusion

The implementation of complementary acupressure therapy at the *Yintang* and *Chengjiang* points proved highly beneficial for the management of the arrhythmia patient. This non-pharmacological intervention successfully reduced tachycardia and chest pain while stabilizing critical vital signs, with a specific focus on the heart rate. Furthermore, the therapy significantly improved the patient's overall comfort, enhanced sleep quality, and effectively lowered anxiety levels. The demonstrated effectiveness of this technique suggests that such integrative interventions can serve as a vital component of holistic arrhythmia management, bridging the gap between physiological stabilization and psychological well-being. Based on these positive outcomes, several recommendations are proposed to enhance clinical practice and institutional standards. Nurses are encouraged to integrate acupressure therapy as a complementary intervention for cardiovascular patients, particularly those suffering from arrhythmia, to improve clinical stability and patient satisfaction. To facilitate this, hospitals should prioritize the development of standardized operating procedures (SOPs) for acupressure interventions, allowing for a more consistent and integrated application within nursing services. Finally, future research should focus on utilizing larger sample sizes and quantitative designs to further validate the efficacy of acupressure across various arrhythmia types and a broader range of physiological parameters.

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