

Case Report

The Effect of 'Holding The Hand' on Pain, Anxiety and Patient Satisfaction in Cesarean-Section and Gynaecological Surgery

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Abstract

Anxiety worsens pain experienced by patients and positive emotional state decreases the intensity of pain felt by the patient. In the absence of mother, holding nurse's hand was efficient. In this case report, we aimed to submit three female patients who had an experience of pain and anxiety preoperatively, perioperatively and postoperatively relieved by hand holding or touching of health care.

INTRODUCTION

Anxiety can manifest itself in many ways, all of them potentially harmful to the outcome of surgery. It is characterised by increased catecholamine levels, heart rate and blood pressure [1,2]. Worst of all, it can cause ischemic heart and hyperventilation or panic attack [2].

In the literature, there are many studies showing that anxiety has aggravated the pain felt by the patients and positive emotional state decreases the intensity of pain [3,4]. Psychological trauma and stress precipitates pain experience or aggravates the present situation [4]. In this case report, we aimed to submit 3 patients who had an experience of pain and anxiety preoperatively, perioperatively and postoperatively relieved by hand holding or touching of health care provider and defined by the patient as a 'hot hand'.

CASE PRESENTATION**Case 1: (AA 447378)**

A 28-year-old woman with a pregnancy of 39 weeks of age had undergone cesarean section with an indication of cephalopelvic disproportion. The patient had a fear in the operation room and general anesthesia. Because of that, she had deep anxiety (VAS 8). Anxiety was measured before the induction of anaesthesia using an 11-point (0-10) visual analogue scale (VAS) ranging from 'not at all anxious' to 'extremely anxious'. When she arrived in the operation room she refused to have drugs for premedication in order to preserve fetus. Combined spinal-epidural anesthesia applied. After spinal blockage was performed, the patient had tachycardia (SAD/DAB 80/50 mmHg, HR 104/min) and nausea.

While preparing for hydration, oxygenation and antiemetic medication; the anesthetist placed his hand on the patient's forehead. At that moment, patient stated that she felt comfortable and safe. Hemodynamic parameters and clinical disturbances including tachycardia, nausea and hypotension rapidly recovered without any medication (SAB/DAB 120/70 mmHg, HR 78/min). Doctor's hand stayed on the patient's forehead during the operation as the patient's request. Operation continued for 30 minutes and hemodynamic parameters were stable. Any additional complaints like nausea or palpitation occurred during the operation. Patient told that the intensity of her pain decreased when she felt the 'hot hand' on her forehead after the operation. Patient stated that she never forgot the moment that she felt 'hot hand' even after 6 years.

Case 2

A 34-year-old woman who had a deformity of spine bifida was the operation for cesarean section under general anesthesia. She had severe anxiety (VAS 8). Before induction of anesthesia, anesthesiologist held the patient's hand and the anesthetist continued to hold the patient's hand until deep sedation.

Hemodynamic parameters became constant level and continued stable during the operation. The CS completed without any surgical and anesthetic complication. Postoperative intravenous patient controlled analgesia (IV PCA) applied. Patient told that hand holding of the anesthesiologist before induction made her feel comfortable and safe and furthermore, she stated that she never forgot this experience even after 5 years.

Case 3: (AB 177064)

A 41-year-old woman had excision of laparoscopic ovarian

cyst under general anesthesia. Local anesthesia was applied to incisional region after the operation. She suffered from severe pain (VAS 8-9) at head, neck and periumbilical region at postoperative visit. The patient had anxiety due to pain. The nurse held the patient's hand before, during and after pain treatment. IV PCA was given as a 20 mg tramadol plus 75 mg metamizole sodium bolus and 10 min lockout time. Simultaneously, bilateral intercostal blockade (IC 8-9) and trigger point injections on neck and shoulder were applied. During these procedures the patient asked about the 'hot hand' before sleeping that she relaxed, felt safe and never forgot about this experience.

There was no negative effect of holding hands in all three patients and there were positive effects on the patient's pain and anxiety.

DISCUSSION

The relationship between pain, anxiety and psychological condition of patient has been focus of many studies. In general, in clinical practice, the psychological status is less important among the causes of pain, and the negative emotional state that should be controlled as a pathological factor can be ignored.

Probably, neural substrates cause pain relief by reducing the stress involved in pain formation. This phenomenon is called "affective analgesia" [5].

In a study of Blood and Zatorre, the authors notified that music may activate positive emotional state and may attenuate pain over many mechanisms including amygdaloid inhibition [6]. Dopaminergic neurons may be activated by food, beverages, sex, drugs, etc. This activation diminishes the emotional responses to pain intensity [7].

Chronical pain may become exaggerated in some stressful conditions including divorcing, quitting a job, medical treatments, surgery. Psychological trauma in childhood (divorce of parents, sexual and/or physical abuse) may lead to form variety of pain including migraine in adulthood [8]. Studies that analyse the relationship between psychological state and acute pain are rare in literature. The cases which were presented in our study had acute pain and surgical stress. They had significant pain experience of preoperative, perioperative and postoperative period. During and after psychological support via hand holding, level of pain intensity decreased and patients were relaxed significantly. In a study conducted by Weekes et al., in a group of 11-to-19-year-old, 10 with cancer and 10 with renal-insufficiency patients, it was reported that their pain decreased with hand holding during painful medical procedures. In this study holding mother's hand was the first choice.

The author presented her perspective, as a patient, on the holistic nursing she received during the birth of her second child. The moments of caring and compassion she encountered are described. Four years later, the author reflects on the spiritual and emotional journey she had as a result of this experience: "Don't

let go. . ." and he was allowed to do nothing but hold my hand the whole time. I never saw the pool of blood on the floor that I thought was my water breaking. I never knew how dangerously low my blood pressure was or that my hematocrit levels were alarmingly low. Instead, my world was filled with infinite sources of strength, pouring in from total strangers. Those memories of caring are vivid pictures in my mind, ones that will stay with me forever, and I will never be the same. I believe in my heart that the caring I received is the reason why I am here today and the reason why my sweet baby is alive today [9].

In the absence of mother nurse's hand holding was efficient [10]. In our cases, hand holding was done by anesthesiologist. Only one of the patients had a relationship of friendship with doctor.

In conclusion, psychological state should be evaluated besides clinical examination in patient who suffers from pain and anxiety. Psychological support may inhibit stress and may decrease the intensity of pain and anxiety. In this context, "hand holding" may provide many benefits in similar cases. In similar cases, in order to reduce pain and anxiety, if necessary, we should hold patient's hand during preop, perioperative and postoperative period.

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