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Comprehensive Therapy for Adjustment Disorder with Mixed Anxiety and Depression Reaction in Post Debridement Transhumeral Amputation ec Crush Injury Right Arm Patient's: A Case Report

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Abstract---Adjustment Disorder with Mixed Anxiety and Depression Reaction in Post Debridement Transhumeral Amputation ec Crush Injury Right Arm is a debilitating condition that significantly impairs daily functioning and quality of life. Comprehensive therapy in a multidisciplinary team is vital for the patient. Supportive psychotherapy is an evidence-based intervention known for its efficacy in treating anxiety-related disorders. This case report presents the treatment process and outcomes of a male patient diagnosed with adjustment disorder and Post-Transhumeral Amputation. The patient underwent physical rehabilitation, such as physiotherapy ultrasound on the right shoulder, Range of Movement (ROM) exercises, strengthening the periscapular muscles, right rotator cuff, and sensory desensitization, evaluating after 2 weeks of therapy, and evaluating the need for prosthesis if the shoulder condition is optimal. The treatment goal for improving functional shoulder ROM, independent Activity Daily Living (ADL) with the left hand. pharmacological therapy is given, supportive psychotherapy to the patient and the family is given, psychoeducation about the psychological impact, and it is very important to accompany the patient as they undergo the process of further medical physical rehabilitation therapy, and supporting the patient in the future. Throughout treatment, the patient demonstrated a reduction in anxiety and depression symptoms, and improved coping mechanisms. The findings highlight the effectiveness of comprehensive therapy in managing the patient.

Keywords---Adjustment, Amputation, Anxiety, Depression, Rehabilitation

Introduction

Higher levels of anxiety symptoms and functionality at presurgery were associated with lower social adjustment to amputation and with higher adjustment to the limitations. Results support the need to improve psychological screening and early treatment of anxiety symptoms before the surgery, as well as depression and traumatic stress symptoms after a lower limb amputation, and the promotion of social support over time, to promote psychosocial

adjustment to amputation. This set of psychosocial variables should be included when planning postamputation rehabilitation and psychosocial intervention programs for this target population (Pedras et al., 2018).

Patients showed higher levels of anxiety than depression symptoms at pre-surgery, although anxiety significantly decreased one month after surgery. Both anxiety and depression symptoms contributed to depression after LLA, although anxiety at pre-surgery was the only predictor of anxiety at post-surgery (Pedras et al., 2018). The other study showed mental health symptoms are associated with educational level, employment status, and adjustment to amputation and prosthesis satisfaction in Lebanese individuals with LLA. These findings should be considered to achieve optimal prosthetic rehabilitation (Saleh et al., 2024).

The result of one study that analyzed revealed the role of insecure attachment styles in influencing the use of an emotion-oriented coping strategy in particular. The latter mediated the relationship between attachment insecurity, depression and anxiety in adult amputees (Falgares, 2018). The main gains of the suggested comprehensive program of rehabilitation appear in a better recovery of the muscle strength of both a stumped and a healthy limb (Herasymenko et al., 2016).

This case report, based on literature review, aims to evaluate the scope and effectiveness of rehabilitation interventions and exercise programs that can improve quality of life and improve symptoms in Post Debridement Transhumeral Amputation ec Crush Injury Right Arm patients with comorbid Adjustment Disorder with Mixed Anxiety and Depression Reaction (Guest et al., 2019).

Methodology

The research method used in this study is a case report with a literature study using secondary data sources from various articles in national, international journals, and textbooks. The author uses PubMed and Google Scholar with keyword searches, "Adjustment, Anxiety, Depression, Amputation, Rehabilitation". The literature obtained is then analyzed systematically. Literature collection is carried out by considering the inclusion criteria in the form of literature published no later than 2018 compared to the total or the entire event.

Case Report

The patient was interviewed in a sitting position on a chair in the physical rehabilitation polyclinic examination room facing the examiner and accompanied by his son. The patient was neatly and cleanly dressed. During the interview, he was able to look at and answer questions well. He tended to tell a lot of other things which then answered the examiner's initial questions. He stated the name, place, and time of the examination correctly, and he was also able to reiterate the examiner's name a few minutes after the initial introduction. He complained of a stiff right shoulder that was getting worse. The stiffness had been felt since November 2024. The patient recounted an accident that happened to him in October 2024. The patient said that on October 2024, he was riding a motorbike from work to home. At that time, he was not wearing a helmet. He was about to overtake a truck, but the motorbike in front of him suddenly slowed down. He finally braked the motorbike hard until it skidded and fell so that the truck he was overtaking ran over the patient's right elbow. During the incident until being taken to the hospital, he was conscious.

The patient underwent 2 operations, namely a hand amputation and repair of an open and seeping surgical wound. However, at first, this incident made the patient feel sad. The sadness because he used to be active in repairing diesel pumps is now no longer possible. This feeling of sadness sometimes makes him feel weak, tending to just stay at home. He can still feel happy because he is always supported by his family and relatives. The patient is still optimistic about his future, although sometimes he feels anxious about his future life, thinking about being productive or supporting his family. There are no palpitations, restlessness, cold hands or shaking when the patient is anxious. He always tries to motivate himself. Occasionally he imagines the accident he experienced, but this does not cause physical symptoms and the patient can still be taken on a motorbike and go through the road where the incident occurred at that time. In the first month of the incident, the patient could only sleep at 04.00 - 06.00. So far, he has not seen or heard anything without a source. He also did not think that the incident that happened to him was the result of something unnatural. The patient hopes that there is an assistive device that can be used so that the right hand can function as before.

He denied any history of systemic illness, surgery or previous allergies. the patient was diagnosed with CF Right Clavicle Lateral Third Allman Group 2, CF Right Scapular Body, Crush Injury Right Arm-Elbow Region + susp vascular injury (MESS Score: 9), OF Right Humerus Middle Third Gustillo Anderson Grade 3C, Brachial Artery Injury, Radial Nerve Injury, Open Dislocation of Right Elbow Joint, Dislocation of Radiocapitellar Joint, Dislocation of Ulnohumeral Joint, Total Rupture Biceps Brachii, Total Rupture Brachialis, Total Rupture Triceps Brachii, Total Rupture Choroacbrachialis. Then in November 2024, he was brought back to the hospital because the surgical wound

was seeping and open, which was accompanied by pain. In the second hospitalization, he underwent another procedure on his upper arm and was diagnosed with Post Debridement + Reconstruction Close the defect with Local Advancement Flap Regio Brachii D ec Infected Wound Regio Brachialis D ec History of debridement and Transhumeral Amputation ec Crush Injury Regio Brachii D (MESS Score 9): Open Degloving Wound Regio Brachialis D with tendon, bone, vascular exposed + skin loss.

There was no previous psychiatric treatment. He also had no history of other medical treatments. Before the accident, he smoked about 9 cigarettes a day for 20 years, still actively smoking until now. Since the accident, he has smoked more up to 16 cigarettes a day. This happened because he had no activities and when his friends came to visit, he would also smoke with his friends. He drinks about 1-2 cups of coffee a day. The patient drinks alcohol only occasionally during social activities or certain celebrations. He has tried illegal drugs since he graduated from STM but has not consumed them again. He currently lives with his wife and two sons. Family life is considered harmonious and he receives support from his family during this treatment. No family members have previous psychiatric complaints.

From Prenatal and Perinatal History, he was born normally and full term, and he was breastfed and cared for by both parents, and his development is typical by children of his age. In Middle Childhood History (age 3-11 years), he can play and socialize with children of his age, there is no difficulty in following lessons. After graduating from STM, after completing his education, he worked in a workshop. He had tried a motorbike repair shop but only for 2 years, then he returned to work at a diesel pump repair shop.

Examination findings showed vital signs, internal medicine assessment, and neurological examination results were within normal limits. A psychiatric evaluation revealed a normal appearance, adequate verbal and visual contact, and an anxious demeanor. His mood and affect were anxious and depressed, appropriate. His thought process was logical and realistic, with a coherent flow, though he exhibited preoccupation with physical condition. His psychomotor activity was calm during the examination, with insight at level 5.

Based on the anamnesis and mental status examination, the patient exhibits an anxiety and depression reaction that has been present for the past 3 months. The symptoms are fluctuating. The patient also reports difficulty sleeping and thinking about his future. Based on the *Pedoman Penggolongan Diagnosis Gangguan Jiwa* (PPDGJ) III (the Indonesian Classification of Mental Disorders), the patient's condition meets the diagnostic criteria for adjustment disorder with Mixed Anxiety and Depression Reaction.

The treatment for this patient consists of both non-pharmacological and pharmacological approaches. The non-pharmacological therapy includes supportive psychotherapy and relaxation therapy to help manage anxiety symptoms. The pharmacological therapy involves the use of benzodiazepine medications. The benzodiazepine prescribed was Alprazolam (0.5 mg tablet), taken orally once every 24 hours at night if needed. The primary goal of Supportive psychotherapy, ventilation is done by allowing him to express what he feels so that he can understand the conditions and feelings he feels. Instilling suggestions in the patient's mind that what the patient is currently undergoing is a recovery process. His current physical condition will be part of the rest of the patient's life, so positive thoughts are needed so that the patient's quality of life remains good. Reassurance is a reassurance carried out by providing supportive comments to be able to function properly again according to the patient's capacity or body condition.

This process is supported by relaxation training, which enables the patient to manage stressful situations more effectively. A therapeutic technique that can relax the mind and body through a process that will progressively release muscle tension in every part of the body. The mind is directed to remain "here and know" aware and accepting physical incompleteness as part of the patient's life. Sleep hygiene using eye and ear covers, keeping the body warm and not cold (e.g. using blankets, socks, applying oil) can help improve sleep disorders.

The main reason the patient sought psychiatric treatment was his excessive anxiety about various aspects of life. He wanted to reduce his overwhelming worry and be able to engage in daily activities without fear of pain and insomnia.

Therapy from Medical Rehabilitation is physiotherapy 2-3 times a week. In physiotherapy, ultrasound is performed on the right shoulder, Range of Movement (ROM) exercises, strengthening the periscapular muscles, the right rotator cuff, and sensory desensitization. They continue evaluating after 2 weeks of therapy and evaluating the need for a prosthesis if the shoulder condition is optimal. The Goal of therapy for improving functional shoulder ROM, independent Activity Daily Living (ADL) with the left hand.

Discussion

Currently, I have found a change in mood feelings that are uncomfortable, sad, anxious, as a result of a change in health conditions experienced by the patient from healthy to sick, which causes the patient to be unable to do activities as before. This disorder is an adjustment to changes in the patient's health situation that occurred in the last three months. In patients found mixed type insomnia, the cause of which is unknown, although occasionally the patient said it was because of thinking. This can be overcome with sleep hygiene and relaxation therapy. Diagnosis Intervention is a step between diagnosis and patient acceptance of treatment. Patients need some discussions before they can accept the diagnosis and participate in treatment. Interventions given with the FRAMES concept (Syamsulhadi & Septiawan, 2016) in Wardani & Nuaba (2023). Feedback on the patient risk or impairment: changes in the patient's physical condition cause psychological disorders that occur due to patient's adjustment. Responsibility for change belongs to the patient: With mature personality traits and ego defense mechanisms in the patient, the patient can survive and experience improvement from previously felt psychological symptoms. Advice to change should be specific and non-ambiguous: The patient is advised to undergo rehabilitation therapy such as physiotherapy, so that the physical complaints currently experienced can be reduced. The patient learns the exercises taught by the Physical Rehabilitation Specialist Doctor and the physiotherapist so that he can also do them routinely at home. Supportive psychotherapy and relaxation therapy are carried out to help optimize the patient's general condition. Empathetic rather than confrontational counseling style: The examiner validates the emotions felt by the patient, provides comments that support the patient. Self-Efficacy: The examiner assesses that the patient and his/her family will follow the recommendations during treatment.

The therapy provided by the Medical Rehabilitation is an important therapy for the recovery of the patient's general condition so that they can return to daily activities optimally. Age and amputation level affect physical balance, prosthesis satisfaction, and daily living activities after amputation. Therefore, orthopedic surgeons and physical therapists should conduct a multidisciplinary evaluation, in transfemoral amputees to improve outcomes (Karaali, 2020).

Therapy from the field of Psychiatry is non-pharmacology in the form of supportive psychotherapy, sleep hygiene and relaxation therapy. This aims to maintain the patient's mature ego defense mechanism so that the patient's fighting power to return to being productive and living with the best GAF can be achieved. The role of psychiatrists in this case: Bridging the patient's complaints or problems to other disciplines to get treatment that can help reduce the patient's suffering, and providing supportive psychotherapy so that the patient remains enthusiastic. Sleep hygiene is taught so that the patient can sleep regularly and with quality. Psychoeducation is also important to be given to the family so that they can understand the patient's current condition and help the patient's recovery. While non-pharmacological therapy is given, supportive psychotherapy to the patient and the family is given psychoeducation about the psychological impact and it is very important in treating the wound to accompany the patient as they undergo the process of further medical physical rehabilitation therapy and supporting the patient in the future (Daniati et al., 2022).

Social phobia, depression and poor quality of life are common problems in patients with major lower limb amputation. After five years, it should not be forgotten that social phobia will increase and depression will decrease along with its seriousness (McKay et al., 2006). Therefore, amputated patients should be psychiatrically counseled and treated. It is important to provide permanent employment opportunities to improve the quality of life (Tutak et al., 2020). Tailored multidisciplinary interventions need to be developed providing support before and after an amputation surgery, to reduce anxiety and depression symptoms and promote psychological adjustment to limb loss (Pedras et al., 2018). This patient will be given a prosthesis, Implications for rehabilitation. Adjustment to amputation and prosthesis use involves both physical and psychosocial issues, it is important that, besides physical rehabilitation, psychological interventions, education, and communication activities between the patient and the health professionals are carried out. The adaptation to the prosthesis and the recovery of walking capacity are important goals in the rehabilitation process and the knowledge of the physical and psychosocial factors associated with amputation and the use of the prosthesis can help the health team to provide better care to these subjects. Well-adjusted, comfortable and easy-to-use prostheses are of great importance as they enable the patient to perform their daily activities and maintain their independence. It is important to encourage the participation of the individual in both rehabilitation and choice of prosthesis (Luza et al., 2019).

Conclusion

The therapy for Adjustment Disorder with Mixed Anxiety and Depression Reaction in Post Debridement Transhumeral Amputation patient's ec Crush Injury Right Arm, provided by the Medical Rehabilitation, is an

important therapy for the recovery of the patient's general condition so that they can return to daily activities optimally. The main gains of the suggested comprehensive program of rehabilitation appear in a better recovery of the muscle strength of both a stumped and a healthy limb, so psychiatric therapy is very important such as non-pharmacological therapy is given supportive psychotherapy to the patient and the family is given psychoeducation about the psychological impact and it is very important to accompanying the patient is undergoing the process of further medical physical rehabilitation therapy and supporting the patient in the future.

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