

# Physiotherapy Treatment vs. Surgical Treatment of Subacromial Impingement

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**Abstract: Objective:** This research paper includes the main objective and that is the effectiveness of both surgical treatments as well as physiotherapy treatment is widely discussed. The benefit of the physiotherapy treatment is highlighted in this study. The specific cause and the functional activity of this shoulder syndrome are effectively highlighted in this study. **Method:** The researcher selects the secondary qualitative data collection process and the thematic analysis that help to gather the information as well as the relevant theories of the physiotherapy. **Results:** The decision comparison of these two treatments surgical vs physiotherapy treatment is concluded through this study. The exercise control system is discussed in this study. The systematic review of this shoulder syndrome has been discussed in this study. The results and discussion along with the proper data sources is discussed in this study. **Conclusion:** The proper conclusion of this research topic is highlighted in this research study. As per the discussion, this paper concluded on the base of the treatment of subacromial impingement. The conclusion discovers that physiotherapy is better than the surgical treatment.

**Keywords:** Subacromial impingement, Physiotherapy vs. Surgical treatment, Surgical treatment of subacromial impingement.

## 1. Introduction

The surgical treatment and the physiotherapy treatment both create the major function in the patient's body and improve the health condition. In case of the subacromial impingement, it contains the potent shoulder pain that is reported as a non-traumatic condition of the arm and has the radiological findings. This syndrome reduces the functional activity of the shoulder and as well as decreases the life mobility quality of the person. In this study, the effectiveness of both surgical treatments as well as physiotherapy treatment is widely discussed. The benefit of the physiotherapy treatment is highlighted in this study. The specific cause and the functional activity of this shoulder syndrome are effectively highlighted in this study. The decision comparison of these two treatments surgical vs physiotherapy treatment is concluded through this study. The exercise control system is discussed in this study. The systematic review of this shoulder syndrome has been discussed in this study.

## 2. Literature Review

### A. The Effectiveness of Surgical Treatment vs. Physiotherapy Treatment

In the case of the subacromial impingement, shoulder pain is frequently reported by patients. The pain arises mainly in the arm and the neck as well as in the shoulder region. The proper exercise takes no time but heals the pain. Apart from this prevention of this pain among the general population is almost 14% in the UK and 27% in the US [9]. The shoulder and neck pain is considered a potent symptom of this syndrome. The radiological treatment of the adjacent tissues in the shoulder trends the rotator cuff of the shoulder. This specific problem has a lot of treatment options that create a conservative approach to the shoulder region.

The arthroscopic surgical decompression is one of the popular treatments for this shoulder syndrome. The superior exercise is an exercise that provides the permanent solution to this disease and makes the shoulder function more flexible as well as improves the arm responses. A recent medical report discussed that the surgical approach improved both shoulder disabilities as well as the pain in the arm [10]. In addition, this type of benefit also can be achieved through regular exercise and physical therapy. The specific movements of the arm and the neck can help to reduce the pain as well as the disability of the shoulder bone.

Apart from this, the concerns about the surgery's effectiveness provide the desired clinical outcome with the subacromial impingement. The surgical treatment is continued with a lot of medication observation as well as other physical effect on the patients [11]. The physiotherapy system is considered a natural treatment that creates a good habit of the exercise and helps to maintain the body balance without any medication treatment. The complex situation of the patient's health can sometimes create more complexity with this subacromial impingement. In addition, there is no proven report discovering that surgical treatment has more effectiveness than physiotherapy treatments. The effect of the anti-inflammatory drug can help to reduce the pain in the shoulder region.

The surgical treatment can be advised if the non-surgical treatment cannot get rid of the extreme pain in the shoulder region. The surgery for this shoulder syndrome is known as "subacromial decompression". This surgery effectively helps

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by creating more space between the bone and rotator cuff. This surgery is completely done through the little cut in the shoulder region that needs time and proper care to heal [7]. The one disadvantage or problem accrued from this surgery is that the arthritis can arise in the shoulder region of the patients used to this surgery. The shoulder required specific time to improve completely.

In the case of these diseases, the narrowing of the space between the shoulder bone can lead to pain in the shoulder region. The various treatments such as taking rest, anti-inflammatory medicine as well as physical therapy. The injection and the surgery can also be effective for this disease [3]. Physical therapy creates the flexibility in the bones and muscles that help to reduce the pain in the arm as well as in the shoulder region. The arrangement of the rotator cuff can be completely cured through physical exercise. Both the medical surgical treatment and the physiotherapy treatment are considered time taking but cure the symptoms of the diseases.

The pinch of the impingement between bones is considered as the major reason for these diseases that can create extreme pain in the shoulder region. The rotator cuff is irritated and injured which creates the pain in the arm [2]. The physical movements and regular exercise heal the injuries in the rotator cuff that lead to the less pain in the shoulder region. The shoulder syndrome treatment has the major goal to reduce the pain and restore the functional activity of the shoulder bones. Physical therapy is considered as one of the most important treatments for shoulder impingement.

### B. *Physiotherapy Treatment of Subacromial Impingement*

Physiotherapy treatment or physical exercise is considered as the most effective and important treatment for shoulder impingement. The continuity in physical exercise and the regular practice can improve the motion range of the shoulder bones. Apart from this, regular practice strengthens the shoulder bones. The cuff muscle also improved through regular physical exercise (6). The health care also includes regular exercise that can help to reduce neck and shoulder pain. The specific movements of the hand and the shoulder along with the neck can reduce the pain. It also helps to restore the flexibility of the shoulder muscle.

The regular exercise can relieve the patients without any surgery and high dose of antibiotics. During the physiotherapy process, the patients also can suffer from the moderate pain and also suffer from no movement limitation. This problem occurs generally among people less than 25 years and frequently face injuries. The pain usually increases over time. A good amount of exercise and the regular habit of physiotherapy can reduce this extreme pain (8). This can take time a little bit extra but does not require a surgical operation on that specific area. Adequate movement of the shoulder can also help with the structural changes of the bones and increase the gaps between the bones in the shoulder region.

The upward rotation of the arm effectively helps to reduce the pain in the neck and shoulder area. Apart from this, the squeeze of the scapula improved the function of shoulder blades in the human body. This exercise effectively helps to improve

the shoulder function which reduces the bone pain (2). The chest stretch helps to restore the functional activity in the arm and pectoral muscle that helps to regulate muscle movements in the shoulder joints. This type of physiotherapy with specific consideration can help to reduce and cure the subacromial impingement. However, the front and back shoulder stretch as well as the external rotation if the arm can heal the shoulder pain and impingement between bones. The internal rotation also effectively helps to improve bone activity in the shoulder regions.

### C. *Inclusion and Exclusion Criteria*

In this research study, the information is collected from authentic article and the previous research paper. The selected articles are gathered for collected the information. The total number of articles are  $N = 205$ . From those research article the duplicate records are removed and collected the authentic and practical article for the research paper (Now,  $N = 115$ ). That final selected article is work as excluded ( $N = 115$ ) criteria as those provides information to extract the conclusion. The inclusion criteria to collect the research information is specific key word and the virtual reality. The kyphosis method is also help to extract the authentic information the research paper.

#### *Information sources:*

In this research study, the information is collected from authentic article and the previous research paper. The selected articles are gathered for collected the information. The authentic journals and articles are collected from authentic site such as Google Scholar and PubMed as well as ProQuest.

## 3. Research Strategies

Research strategies provides the systematic way to concludes the research progress. The research strategies help to gathered all information and help to improve the results of the research. The researcher gathers the information from previous journals and the research paper. The medial article is help to gathered the advance information about the surgical process. The researcher also maintains the proper ethics to conclude the research study.

### A. *Selection Process*

The researcher selects the secondary data collection process and the thematic analysis that help to gather the information as well as the relevant theories of the physiotherapy.

### B. *Data Collection Process*

the researcher collects all the information from medical research paper and the current journals. The updated journals and the books help to gathered authentic information about the research topic. The researcher is also established the relevant themes to analysis the gathered information and make the effective outcome of the results the different aspects of the information help to decides the better treatment for the shoulder syndrome of the patients. The researcher also makes the effective theories to concludes entire research progress.

### C. *Risk of Bias*

The researcher faced several risk factors to conclude this

research topic. The researcher is making the effective decision by analysis the relevant theories as well as the research paper previously. The literature reviewed of the research paper help to analyse the several aspects of the information. The researcher faces to gathered information as this research required the current as well as previous research paper. The gathered information of the, medical research paper is difficult for the researcher as it not possible to collect the practical research report of the shoulder syndrome.

#### *D. Cause and Treatment of the Subacromial Impingement*

The pinch of the impingement between bones is considered as the major reason for these diseases that can create extreme pain in the shoulder region. The rotator cuff is irritated and injured which creates the pain in the arm. The pain arises mainly in the arm and the neck as well as in the shoulder region [3]. The proper exercise takes little time but heals the pain. The regular exercise can relieve the patients without any surgery and high dose of antibiotics. During the physiotherapy process, the patients also can suffer from the moderate pain and also suffer from no movement limitation.

The upward rotation of the arm effectively helps to reduce the pain in the neck and shoulder area. Apart from this, the squeeze of the scapula improved the function of shoulder blades in the human body. This exercise effectively helps to improve the shoulder function which reduces the bone pain. The chest stretch helps to restore the functional activity in the arm and pectoral muscle that helps to regulate muscle movements in the shoulder joints [1]. The shoulder implementation is one of the common issues that occur among the athletes and who perform the arm movements. The frequent flexibility of art movements irritates the rotator cuff and the operation of the irritate in the cuff tendon creates impingement in the shoulder blades.

This creates extreme pain and functional abnormality in the shoulder region. The scapula squeeze is the main physical exercise for this problem. The surgical treatment can be advised if the non-surgical treatment cannot get rid of the extreme pain in the shoulder region [2]. The surgery for this shoulder syndrome is known as “subacromial decompression”. This surgery effectively helps by creating more space between the bone and rotator cuff. This surgery is completely done through the little cut in the shoulder region that needs time and popper care to heal.

### **4. Recent Advances**

#### *A. Benefits of Physiotherapy Treatment for Subacromial Impingement*

The regular and the adequate practice of the physiotherapy in the subacromial impingement effectively reduces the extreme pain in the shoulder region. The nonoperative treatment for this problem decreases the inflammation in the subacromial region and allows the healing of functional activity of the shoulder bones. This can provide strength to the rotator cuff. The regular exercise can also help with arthritis and nerve compression in the shoulder region [4]. The squeeze of the scapula improved the function of shoulder blades in the human body. This exercise effectively helps to improve the shoulder function

which reduces the bone pain. Several exercises help to mitigate the pain and make the correct functional activity of the rotator cuff. In case of the subacromial impingement, it contains the potent shoulder pain that is reported as a non-traumatic condition of the arm and has the radiological findings. This syndrome reduces the functional activity of the shoulder and as well as decreases the life mobility quality of the person. The shoulder and neck pain are considered as a potent symptom of this syndrome. The radiological treatment of the adjacent tissues in the shoulder trendies the rotator cuff of the shoulder [5]. This specific problem has a lot of treatment options that create a conservative approach to the shoulder region. The superior exercise is an exercise that provides the permanent solution to this disease and makes the shoulder function more flexible as well as improves the arm responses. The regular physiotherapy is also one of the great habits to maintain the functional activity of the shoulder and arm bone.

### **5. Result and Discussion**

After the analysis the all information of the research paper the researcher makes the effective decision of research topic. The regular and the adequate practice of the physiotherapy in the subacromial impingement effectively reduces the extreme pain in the shoulder region. The nonoperative treatment for this problem decreases the inflammation in the subacromial region and allows the healing of functional activity of the shoulder bones. This can provide strength to the rotator cuff. The upward rotation of the arm effectively helps to reduce the pain in the neck and shoulder area. Apart from this, the squeeze of the scapula improved the function of shoulder blades in the human body. This exercise effectively helps to improve the shoulder function which reduces the bone pain. The surgical treatment can be advised if the non-surgical treatment cannot get rid of the extreme pain in the shoulder region. The surgery for this shoulder syndrome is known as “subacromial decompression”. This surgery effectively helps by creating more space between the bone and rotator cuff. This surgery is completely done through the little cut in the shoulder region that needs time and popper care to heal. The researcher concludes about the two-treatment process of the shoulder impingement.

### **6. Conclusion**

At the end of the discussion, this study concluded on the base of the treatment of subacromial impingement. The conclusion discovers that physiotherapy is better than the surgical treatment. The one disadvantage or problem accrued from this surgery is that the arthritis can arise in the shoulder region of the patients used to this surgery. The shoulder required specific time to improve completely. In case of the physical exercise also help with arthritis and nerve compression in the shoulder region. The surgical treatment can be advised if the non-surgical treatment cannot get rid of the extreme pain in the shoulder region.

The proper exercise takes little time but heals the pain. The regular exercise can relieve the patients without any surgery and high dose of antibiotics. During the physiotherapy process, the

patients also can suffer from the moderate pain and also suffer from no movement limitation. A good amount of exercise and the regular habit of physiotherapy can reduce this extreme pain. This can take time a little bit extra but does not require a surgical operation on that specific area. The adequate movement of the shoulder can also help with the structural changes of the bones and increase the gaps between the bones in the shoulder region.

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