

The Role of Physiotherapy In Cubitus Valgus Deformity

Abstract

The research title of this abstract is "THE ROLE OF PHYSIOTHERAPY IN *Cubitus Valgus Deformity*" and this research study is done for medical unfit candidates of "*Indian Defence Services*".

This research study is done on those 107 candidates who had been disqualified from Indian Armed Forces (*Indian Army, Indian Navy & Indian Air Force*). The main motive behind the research study is to help those candidates who were well qualified & completed their written & physical examinations but due to "CUBITUS VALGUS" (A kind of orthopedic deformity of Elbow joint), they were disqualified from medical examination board of *Indian Defence Services*.

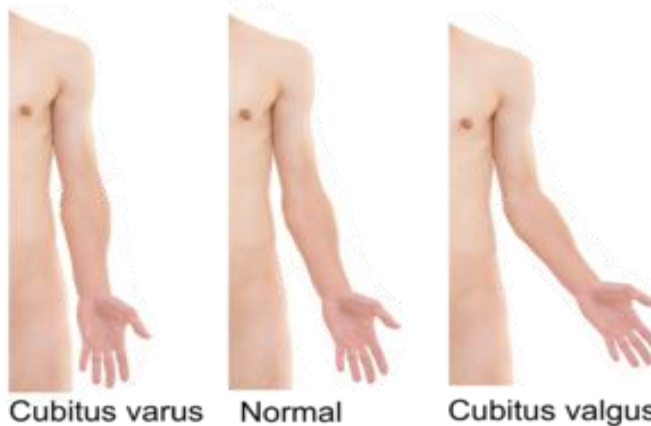
In future, this study will definitely help in other fields like sports and post operative physiotherapy management of elbow joint. In majority of cases, we find the elbow deformity (*Valgus Or Varus*) occurs after the surgery is done in case of fracture of elbow joint, the solution of this problem is being discussed in this research paper.

Keywords: Cubitus Valgus, Carrying Angle, Medical Unfit, Elbow Deformity.

Introduction

When carrying angle is increased so that the forearm abducted excessively in relation to the upper end, "The deformity is known as Cubitus Valgus".

There are three figures given in this picture, the first one is showing that the angle of elbow joint is shifted medially and the forearm is making an angle towards inside in respect of elbow joint (Cubitus Varus), the second one is showing a straight angle of elbow joint in respect of forearm (normal position) and the third one is showing that elbow joint is shifted laterally & the forearm is making an angle towards outside of the body in respect of elbow joint (Cubitus Valgus).



In past years, researcher has faced a serious problem, the candidates who have been rejected from medical fitness examination of *Indian Defence Services* (*INdian Army, Indian Navy & Indian Air Force*) for the *Cubitus Valgus* deformity, they have been consulted earlier to so many medical authorities but everyone said that the *Cubitus Valgus* is an orthopedic deformity & there is only one method that is surgical procedure but surgical procedure is not permitted in defence medical examination.

So the researcher made the decision to correct it through physiotherapy treatment within given grace time period which is in between 21 to 45 days.

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The Main Text**The Problem/Objective of the study**

The Objective of the study is to solve the problem of those candidates, who have a good I.Q. level with excellent physical fitness, also they have a dynamic personality, instead of all these eligibilities they have been disqualified by an orthopedic deformity that is Cubitus Valgus and they have no other option, only surgical procedure is there to resolve their problem. Then the researcher thought what he should do as a physiotherapist? Researcher made up his mind positive and he just started work for the solution of Cubitus Valgus deformity through conservative management.

This research study can be the KEY FACTOR of their solution for Cubitus Valgus deformity.

Review of literature

1. According to "essential orthopedic" 5th edition 2015 (Maheshwari & Mahaskar) "No treatment is required for a mild deformity but a moderate to severe deformity may need correction by a supra condyler osteotomy.
2. According to "Management of cubitus varus and valgus" artical by Kim HT, et al. Joint & Bone Surgery AM 2005.

Conclusion

Step cut translation osteotomy, with a wedge shaped osteomized surfaced fixed with a "Y shaped humeral plate is a relatively simple procedure resulting in a very firm fixation that allows early movement of the joint with good clinical result for the treatment of cubitus valgus deformity".

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1. Research article "The treatment of Cubitus Valgus using the ilizarov method" published September 15th 2015 says that ilizarov surgical method is easy method to cure cubitus valgus.
2. According to Andrea R. Solins (02 Sep., 2016) in her research title cubitus valgus andrea.....
 - i. Mild deformity – No treatment.
 - ii. Moderate to severe – Medical closed wedge osteotomy.
 - iii. Tardy Nerve Palsy – Anterior Transposition of ulner nerve.
3. According to 2009 journal of shoulder and elbow surgery board of trustees, The article is "The Corrective dome osteotomy for cubitus varus and valgus in adults" (Soo Bang Hahn, MD, PhD., YUN Rak Choi, MD. PhD, HO Jung Kong, MD PhD) for the angle correction of elbow joint through corrective dome osteotomy procedure (surgical method).

4. Concepts & Hypothesis

The researcher has used the concept of angle correction frequently for his research study because in other method which is surgical procedure the concept of angle correction takes place with the help of osteotomy method.

The method of osteotomy is not recommended in medical examination of defence services, because of this the researcher has only option of angle correction through exercise method.

Research Design**Methodology**

The researcher used the method of exercise therapy and electrotherapy treatment to correct the cubitus valgus deformity. In exercise therapy the researcher used the medial gliding method of affected elbow joint to correct the angle of forearm in respect of elbow joint and in electrotherapy researcher used the infrared (thermal effect) for increasing of blood flow to the adjacent muscles around the elbow joint, ultrasound therapy and T.E.N.S.(transcutaneous electrical nerve stimulator) modalities for relaxation of the muscle fibers around the elbow joint and reducing the pain in muscles & elbow joint.

Finding

When the researcher did this procedure on 107 candidates who were temporarily rejected in medical examination of INDIAN DEFENCE SERVICES, during the period of treatment which was in between 21 to 45 days. He found the unfit candidates have been qualified in re-medical test of Indian defence services.

Conclusion

Finally, the researcher got the conclusion of this treatment procedure, that it was a myth that the cubitus valgus cannot be treated by conservatively but physiotherapy made it possible, it is a fact.

Suggestion

Now a days, this treatment became the hope for those candidates who have been rejected from Indian defence services. There were so many candidates who have been selected in defence services with the help of this new method of physiotherapy treatment.

Now the researcher want to explain and publish this method to everyone about the fact that cubitus valgus can be cured by physiotherapy treatment & there is no need of surgical procedure to cure cubitus valgus deformity.

Acknowledgement

In the name of almighty god the researcher want to pay his sincere regards to medical authorities of *Indian Defence Services* and those *Unfit Candidates* who have shown their strong faith on researcher's study because if they do not give their consent for the research purpose, this study could never be completed also researcher want to give special thanks to each & every member of "*Analgia Physiotherapy Center*" because they did their job honestly & sincerely.

List of 107 successful candidates *Indian Armed Forces* accordingly by their number-

1. From Indian Air Force-42
2. From Indian Navy -53
3. From Indian Army -11
4. From CAPFs - 01

Because this research is based on defence personals, it is a matter of confidential documents because of this the researcher is not giving the particulars of individual candidate.

References

Books

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Research Journal

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