

A Case Report on the Effect of Tapping to Reduce Pain on Hoffa's Syndrome in a Cricket Player

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Abstract

Background:

Hoffa's syndrome is also called infrapatellar fat pad syndrome. Hoffa's fat pad is a partly adipose mass formed in the anterior region of the knee. IFB can become one of many causes of anterior knee pain when it becomes inflamed, leading to impingement at the tibiofemoral joint or lateral aspect of the patellofemoral joint, known as Hoffa's pad impingement syndrome

The purpose of this case report is to highlight the implementation of kinesio taping in Hoffa's syndrome. Kinesiology taping is effective in the improvement of acute pain when added to exercises and physical therapy

Objective: Reduction of knee pain and improve the end range of motion of the knee joint. This helps in enhancing functional activities and playing.

Method: The study was done on one patient aiming to reduce pain and end-range restriction in the knee joint. we used Kinesio tapping for treatment purposes.

Result: We found a reduction in the knee joint pain and improvement in the end range of movement of the knee joint after the application of 15 days of Kinesio taping.

Case Representation:

One patient taken in the study was a 17-year-old male cricket player, a secondary school student with a complaint of acute pain in the anterior region and side of the knee joint with end range restriction. Activities such as climbing the stairs or sitting with the knee bent are painful. The patient is having complaints of pain during playing cricket and increases during weight-bearing position on the involved extremity. patient have no significant past medical history.

Introduction:

It is also known as **infrapatellar fat pad syndrome** is a problem that affects **one of three pads of fatty soft tissue** that lies **under the kneecap** (patella) and leads to **pain at the front of the knee**. The **Hoffa's fat pad** acts as a **protective cushion**, which **separates the kneecap from the shin and thigh bones**. If this becomes **pinched, squashed, or damaged**, it becomes **swollen, inflamed, and sore**. It **increases in size** after it has become swollen, and is more likely to get pinched again. This **cycle can lead to a lot of pain** in the front of the knee which is **hard to get rid of**. Can happen for a **number of reasons**. It could be caused by a **sudden injury**, such as a direct hit to the knee. It tends to **gradually develop over time** if the knee is **repeatedly extended**. This is when the **knee is forced beyond its fully straightened normal position**. The patient may have a history of being able to **over-straighten the knee**, which is known as **hyperextension**. The **symptoms of Hoffa's syndrome** include **pain at the front and side of the knee**. This is often **hard to pinpoint** and there has been **no clear injury**. Activities such as **climbing the stairs**, or even **sitting with the knee bent are painful**. In some cases, there is a **background ache** and **occasional jolts of sharp pain**. Generally, there is **swelling below and around the knee**, **pain in straightening the knee**, or **prolonged walking**.

Material and Methods:

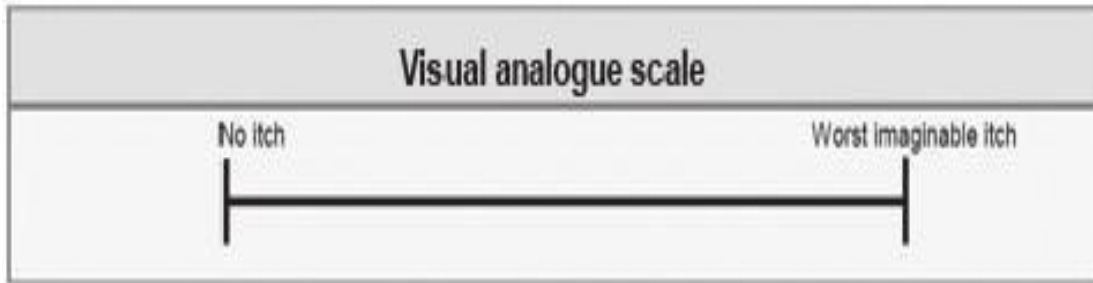
Report of the case:

The study was done on one patient having persistent pain in the knee joint who had come to the physiotherapy department. The patient had end-range restriction of the knee joint and had pain and difficulty in playing and walking.

Clinical Findings:-

While performing movement of the knee joint of the patient there is repeated mechanical stress during flexion and extension pain increases more in the extension of the knee joint. Movement of the knee

causes swelling in the anterior and lateral regions of the knee. Assessment of the pain was done by using VAS.



DIAGNOSIS

Hoffa's test: -

The patient's knee is in 90° flexions and each fat pad is tested by applying pressure to the medial or lateral side of the patellar tendon. Then the knee is passively extended. This test is positive if pain and discomfort are felt during the extension of the knee.



THERAPEUTIC INTERVENTION:-

In Hoffa's Syndrome taping is used for knee pain. In this study, we have used two types of tapes web and star shapes.

Position:-

1. Knee is extended in the position of the patient.
2. Anchor with no tension adjacent to the target tissue.
3. Apply 0-5% tension over an area of pain. End with no tension.
4. Activate adhesive, repeat with up to 2 additional web strips to form a star pat



5.

RESULT:-After application of kinesio taping for 15 days. It was recorded that there is clinically meaningful improvement in outcomes score.

OUTCOME Measures:

| KINESIO TAPING | PRE-TEST (before taping) | POST-TEST (after taping) |
|----------------|-----------------------------|-----------------------------|
| 1 to 5days | 08 | 06 |
| 5 to 10days | 07 | 05 |
| 10 to 15 days | 05 | 02 |

Results:

The patient was treated with an application of kinesiology tapping for 15 days. By day 15 his pain level of the involved extremity was assessed and he reported clinically meaningful improvement in outcome scores

Conclusion:-

This case report highlights how Kinesio taping is effective in the treatment of Hoffa’s syndrome. Further implementation of this technique can be planned for the players who are having problems with Hoffa’s syndrome and facing lots of challenges on the ground.

References:-

- 1.B. Maurel, T. Le Corroller, M. Cohen, et al.[Infrapatellar fat pad: anterior crossroads of the knee] J Radiol, 91 (2010), pp. 841-855 ArticleDownload PDFGoogle Scholar
2. Radu A, Discepolo F, Volesky M, Munk PL, Le H. Posterior Hoffa’s fat pad impingement secondary to a thickened infrapatellar plica: a case report and review of the literature. J Radiol Case Rep. 2015
- 3.Kurt EE, Büyükturan Ö, Erdem HR, Tuncay F, Sezgin, H. Short-term effects of kinesio tape on joint position sense, isokinetic measurements, and clinical parameters in the patellofemoral pain syndrome. J Phys Ther Sci. 2016;28(7):2034-2040.
- 4..<https://www.topdoctors.co.uk/medical-dictionary/hoffa-s-syndrome7>.
5. Kumar D, Alvand A, Beacon JP. Impingement of infrapatellar fat pad (Hoffa’s disease): results of high-portal arthroscopic resection. Arthroscopy: The JourArthroscopic & Related Surgery. 2007 Nov 1; 23(11):1180-6.
- 6..https://www.researchgate.net/figure/Assessment-scales-visual-analogue-scale-VAS-numerical-rating-scale-NRS- and-verbal_fig1_51880290
- 7..https://www.google.com/search?q=Hoffa%27s+syndrome+clinical+feature&rlz=1C1YTUH_enIN1037IN1037&oq=Hoffa%27s+syndrome+clinical+feature&aqs=chrome..69i57j33i10i160l3.31417j0j15&sourceid=chrome&ie=UTF-8
- 8..<https://www.topdoctors.co.uk/medical-dictionary/hoffa-s-syndrome7>.