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ORIGINAL ARTICLE

COMPARATIVE EFFECT OF KINESIO TAPING OVER MYOFASCIAL RELEASE TECHNIQUE ON PATIENTS WITH PLANTAR FASCIITIS

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ABSTRACT

Background of The Study: Plantar fasciitis is a disorder of the connective tissue which supports the arch of the foot. It results in heel pain and bottom of the foot that is usually most severe with the first step of the day. Primary objective of the study is to compare the effect of kinesio taping over myofascial release technique on patients with plantar fasciitis. Secondary objective of the study is to find the effect of kinesio taping and myofascial release technique on patients with plantar fasciitis.

Methodology: This study is an experimental design of comparative pre and post test type. 30 subjects with a clinical diagnosis of plantar fasciitis were randomly divided into two groups. 30 subjects with pain over plantar fascia in the age group of 16 -50 years of age with duration less than 1 and half months were included in this study. After completing the initial assessment both the groups asked to complete Foot Functional Index, VAS, Intervention for group A with Kinesio Taping and group B with Myofascial Release Technique. Both group receive treatment for 8 sessions, 2 sessions/week, Before and after the completion of 4 weeks. **Results:** Comparative study between Group A and Group B showed significant difference in effectiveness of pain and improve foot function with P value >0.0001 respectively among patients with plantar fasciitis. **Conclusion:** The study concluded that kinesio taping found more effective than the myofascial release technique on reducing pain and improve foot function among patients with plantar fasciitis.

Keywords: Plantar fasciitis, visual analogue scale(VAS), kinesio taping, myofascial release technique, foot function index(FFI)

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INTRODUCTION

Plantar heel pain is one of the most common occurring foot complaints treated by health care professionals. Plantar heel pain is thought to be most commonly associated with plantar fascia. Plantar fasciitis is the most common cause of inferior heel pain. The word 'Fasciitis' assumes inflammation is an inherent component of this condition¹.

Plantar fasciitis affects about 10% of the population atleast in one moment in life ,being obese women at menopause age mostly affected. In the non athletic population ,it is most frequently seen in weight bearing occupations ,65% of non sports demographics are overweight ,with unilateral involvement most common in 70 % of cases .Second major distribution of plantar fasciitis is in the athletic population⁽⁴⁾ .

Plantar fasciitis can be design as an inflammation of the plantar fascia (also referred as heel pain syndrome or painful heel syndrome).The injury itself is an enthesopathy (an abnormality or injury at the site of attachment of a ligament or tendon to bone) of the origin of plantar fascia at the medial tubercle of calcaneus due to excess traction.

The plantar fascia is a thick, fibrous, relatively inelastic sheet of connective tissue originating from the medial heel, where it then passes over the superficial musculature of the foot and insert on to the base of each toe.The plantar fascia is the main stabilizer of the median longitudinal arch of the foot against ground reactive force, and is instrumental in reconfiguring the foot into a rigid platform before toe-off. Plantar fasciitis occurs when the band of tissue is overloaded or overstretched .This tension produces a small

tears in the fibres of fascia, especially where the fascia meets the anterior calcaneus .Some theories believe that plantar fasciitis to be an entrapment neuropathy involving the branch to abductor digiti minimi (BAXTER).It has been reported that plantar fasciitis is associated with long periods of weight bearing².

Plantar fasciitis is classified as a syndrome that results from repeated trauma to the plantar fascia at its origin on the calcaneus (Mark, 1999).It is a common foot disorder affecting millions of individuals across the world (Neena ,2010)It occurs over a wide range and seen in athletes and individuals who lead a sedentary lifestyle Degeneration of the plantar fascia at its calcaneal origin is termed plantar fasciitis (2010)³.

The chief initial complaint is typically a sharp pain in the inner aspect of the heel and arch of the foot with the first few step in the morning or after long periods of non weight bearing .Usually after walking approximately ten to twelve steps the plantar fascia become stretched and the pain gradually diminishes. However symptoms may resurface as throbbing ,a dull ache or a fatigue like sensation in the medial arch of the foot after prolonged periods of standing ,especially on unyielding cement surfaces⁽⁸⁾ .

Myofascial release is a system of therapy that combines principles and practice from soft tissue technique, MET and inheritance force cranio sacral technique . MFR is defined by Upledgeret, at.al that it is a softening or letting go when resistance melts and the tissue elongates .MFR technique can deep superficial or deep pressure at the point of restriction or low-load prolonged gentle distraction of restricted tissues. There is a growing body of literature in Myofascial Releases effectiveness

in various soft tissue condition .MFR therapy refers to a class of manual technique that is used to relieve abnormal constriction of tense fascia⁶.

MFR stem from the foundation that fascia, a connective tissue found throughout the body, reorganizes itself in response to physical stress and thickness along the lines of tension .by Myofascial release there is a change in viscosity of ground substance to a more fluid states which eliminates fascias`s excessive pressure on pain sensitive structure and restores proper alignment .Hence this technique is proposed to act as a catalyst i resolution of plantar fascia.

Myofascial Release technique is used to alleviate musculoskeletal pain,relieve spasm due to the application of direct pressure. It is the application of low load, long duration stretch to myofascial complex of the body with the purpose to restore the optimal length, decrease pain and improve function .It has been hypothesized that fascia restriction in one part of the body due to fascial continuity⁹. This would result in stress on any other structure that are either supported or divided by the fascia. By Myofascial release there is a change in the viscosity of the ground substance to a more fluid state which eliminates the fascias excessive pressure on the pain sensitive structure and restores proper alignment⁵.

Hence this technique is proposed to act as a catalyst in the resolution of plantar fasciitis.

By restoring the length and health of restricted connective tissue ,pressure can be relieved on pain sensitive structure such as nerve and blood vessels .MFR generately involves slow sustained pressure (120 to 300 seconds) applied to restricted fascial layers either

directly (direct technique MFR) or indirectly (indirect technique MFR).

It is presumed that myofascial release technique may stimulate fibroblast proliferation, leading to collagen synthesis that may promote healing of plantar fasciitis by replacing the degenerated tissue with a functional tissue⁷.

One study has shown that Kinesio taping was effective in improving balance and functional performance in plantar fasciitis. During weight bearing activities like standing and walking, feet is the structure that contacts with the ground and transfers the body weight to the ground.

In plantar fasciitis due to pain and discomfort, subjects adopt compensatory gait patterns. They usually adopt antalgic gait pattern whereby they decrease the time of heel contact with the ground¹⁰.

Kinesio Taping (KT)was originally developed in Japan by Chiropractor Kenzo Kase.It is made up of an elastic polymor strand wrapped by 100%cotton fibers and it can be stretched to 140% of its original length .Kinesio Taping (KT)was created to provide therapeutic benefits while allowing support and stability to muscles and joints without restricting the body`s range of motion .K Taping application facilitates the reduction of oedema and inflammation ,improves lymph and blood circulation ,and contributes through proprioception ,to the normalization of muscle function and the supports of ligaments and the tendons⁽¹¹⁾. The elastic tape is capable of stretching up to 130-140% of in resting static length ensuring free mobility of the applied muscle or joint. Dr. Kase claimed that by applying the KT, physiological effects would

include a decrease in pain by stimulating the neurological system, restore correct muscle function by supporting the weakened muscles, remove congestion of lymphatic fluid or hemorrhages under the skin, and correct misalignment of joints by reducing the muscle spasms. After applying the tape, the taped area from convolutions, thus increasing the space between the skin and muscles. Once the skin is lifted, the flow of blood and the lymphatic fluid is promoted. The KT can be applied to virtually any muscle or joint in the body. However, minimal evidence searched from their inception through March 2012. The search query included the terms "kinesio taping", "kinesiology tape", "KT and kinesiology taping", entered with and without spacing between two words.

Kinesio taping method is a definitive rehabilitative taping technique that is designed to facilitate the body's natural healing process while providing support and stability to muscles and joints without restricting the body's range of motion. Usually Kinesio taping can control the pulling force to a certain tendon or ligament in order to avoid further injury so that the tissue repair can be facilitated¹².

Aim of the Study: The aim of the study was to compare the effectiveness of the Kinesio taping over the Myofascial release technique on patients with plantar fasciitis.

Need of the Study: Plantar fasciitis refers to inflammation of the plantar fascia. It is one of the most common causes of the heel pain. It causes soreness or tenderness of the sole of the foot. It is a common condition that can be

unilateral and bilateral. The pain is worst early in the morning and often improves with activity.

METHODOLOGY

Study Design: Experimental study design used in the study. This was a Pre-post Comparative type study.

Study Population: Patients with plantar fasciitis were included in this study.

Study setting: Outpatient physiotherapy department, ACS Hospital, Chennai.

Sample size: 30 subjects were included in the study.

Study sampling: Simple Random Sampling used allocation of samples into two groups.

Study duration: This study conducted for duration of four weeks.

Inclusion Criteria: Subjects between 16-50 years of age, Both male and female, Pain at the insertion of plantar fascia on calcaneum, Pain walking with shoes, Unilateral plantar fasciitis, Pain -first step in the morning, Visual Analogue Scale=5 to 8, Foot Function Index=4 to 6.

Materials Used: Kinesio Tape, Scissors, Pen, Pencil, Paper, Cotton, Treatment table and pillow

Outcome Measures: Pain and Ankle Function were the outcome measures of this study.

Measurement Tools: Visual Analogue Scale, Foot Function Index

Procedure: The subjects were assessed and screened according to the inclusion and exclusion criteria. Those fulfilling the criteria were explained in detail about the study

and a written informed consent, in their preferred language, was obtained from the subjects willing to participate.

The subjects were allocated to two different treatment groups. Group – A (Kinesio tape), Group –B (Myofascial Release Technique), by simple random sampling, each group consists of 15 subjects.

The baseline data for Pain intensity, Foot Function Index was taken pre intervention; post intervention data at the end of 4 weeks of treatment.

GROUP A (Kinesis Taping):

15 subjects in this group will be given the kinesio taping. For kinesio taping the patients were asked to lie prone with their feet resting slightly outside the couch on a pillow for comfort. The affected foot will be kept in neutral position. One end of the tape was fixed to the patient's calcaneum from posteriorly and pulled towards toes from the plantar surface, with slight tension on the tape. Again a second tape is put in a figure of eight around the patient's ankle with slight tension on the tape. Taping will be given for 2 sessions per week.

GROUP B (Myofascial Release Technique):

15 subjects in this group will be given the Myofascial Release Technique, the patient was asked to lie down prone on couch with their feet out of the couch. They were given the pillow under their feet for support and comfort. The area of treatment will be clean and dry. The therapist evaluates the area of treatment. The therapist will be standing near the foot end of the patient. Sustained gentle pressure in the line with the fibers of plantar fascia from calcaneum towards the toes, using the thumb was given. The pressure was held for 90 seconds. This myofascial release technique will be given for 15 minutes per session with 1 minute of rest interval for 2 sessions per week. The total period treatment was for 4 weeks.

The subjects in both the groups were advised not to stand and not to run for a long time and not to walk bare foot. Also the subjects were advised not to indulge in any other treatment for their plantar fasciitis.



Fig.1 Taping technique



Fig.2 Myofascial Release technique



Fig.3 Plantar stretching

Data Analysis

Group A- Kinesio Taping

VAS	Mean	Number of Pairs	Mean Diff.	SD, SEM	DF	T	P value	Sig. Diff. (P < 0.05)
Pre Test	6.000	15	3.400	0.8281	14	15.90	<0.0001	****
Post Test	2.600			0.2138				

Table 1: Paired t test on VAS within Group A on effectiveness of Kinesio Taping among patients with plantar fasciitis.

The above table 1 shows significant difference in VAS on patients with plantar fasciitis with P value >0.0001

VAS	Mean	Number of Pairs	Mean Diff.	SD, SEM	DF	T	P value	Sig. Diff. (P < 0.05)
Pre Test	6.200	15	3.133	0.6399	14	18.96	P>0.0001	****
Post Test	3.067			0.1652				

Table 2: Paired t test on VAS within the Group B on the effectiveness of Kinesio Taping on pain among patients with plantar fasciitis.

The above table 2 shows significant difference in VAS on effectiveness pain among patients with plantar fasciitis with P value >0.0001.

Group B -Myofascial Release Technique

FFI	Mean	Number of Pairs	Mean Diff.	SD, SEM	DF	T	P value	Sig. Diff. (P < 0.05)
Pre Test	112.6	15	20.13	4.998	14	15.6	P>0.0001	****
Post Test	92.47			1.291				

Table 3: Paired t test on FFI within the Group A on the effectiveness on foot function among patients with plantar fasciitis.

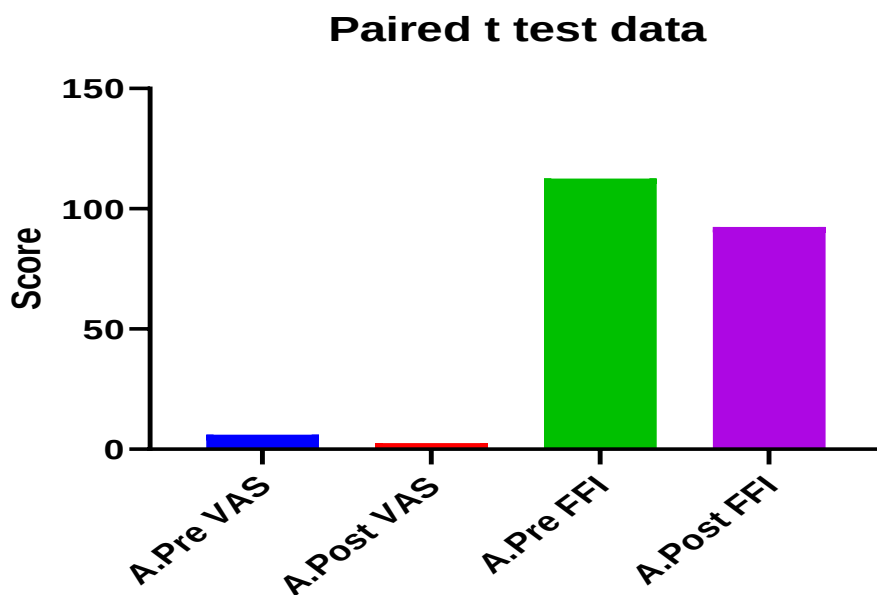
FFI	Mean	Number of Pairs	Mean Diff.	SD, SEM	DF	T	P value	Sig. Diff. (P < 0.05)
Pre Test	111.1	15	16.87	6.081	14	10.74	>0.0001	****
Post Test	94.20			1.570				

Table 4: Paired t test on FFI within the Group B on effectiveness of on foot function among patients with plantar fasciitis.

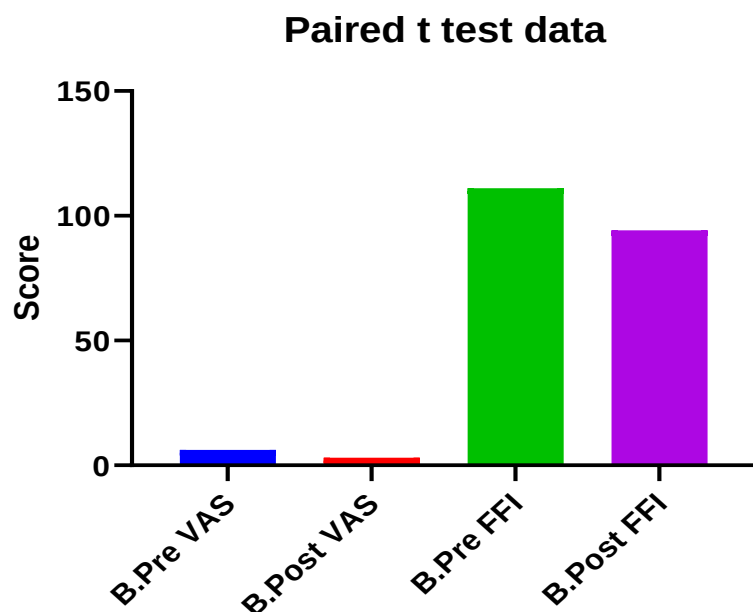
The above table 3 shows significant difference in FFI within the Group B on the effectiveness on foot function among patients with plantar fasciitis with P value >0.0001.

The above table 4 shows significant difference in FFI within the Group B on effectiveness of on foot function among patients with plantar fasciitis with P value >0.0001.

Graph 1: Presentation of VAS within the Group A and B on the effectiveness on pain and foot function among patients with plantar fasciitis.



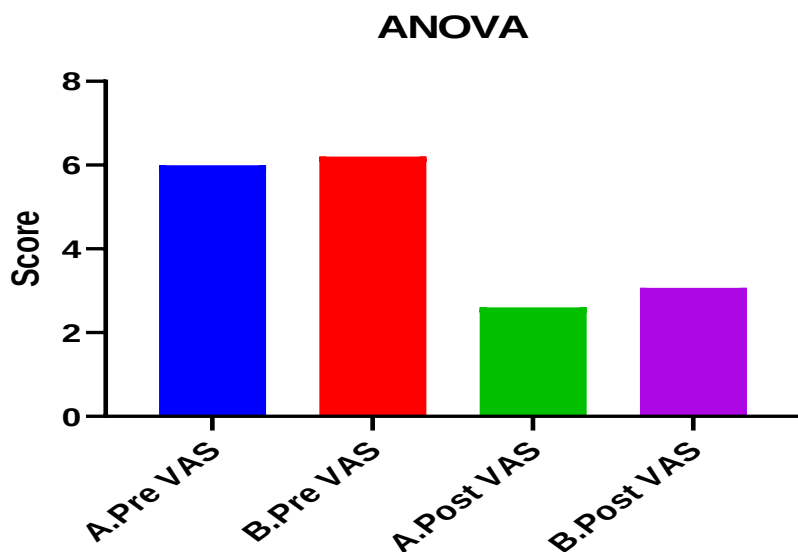
Graph 2: Presentation of FFI within the Group A and B on the effectiveness on pain and foot function among patients with plantar fasciitis.



Out come Measures	Exercise Group A and B	Test	Mean	Mean Diff.	R Square	F	P value	Sig. diff. (P < 0.05)
VAS	Kinesio Taping	Pre test	6.000	3.400	0.806	77.67	<0.0001	****
		Post Test	2.600					
	Myofascial Release technique	Pre test	6.200	3.133				
		Post Test	3.067					

Table 5: ANOVA to compare VAS between Group A and B among patients with plantar fasciitis

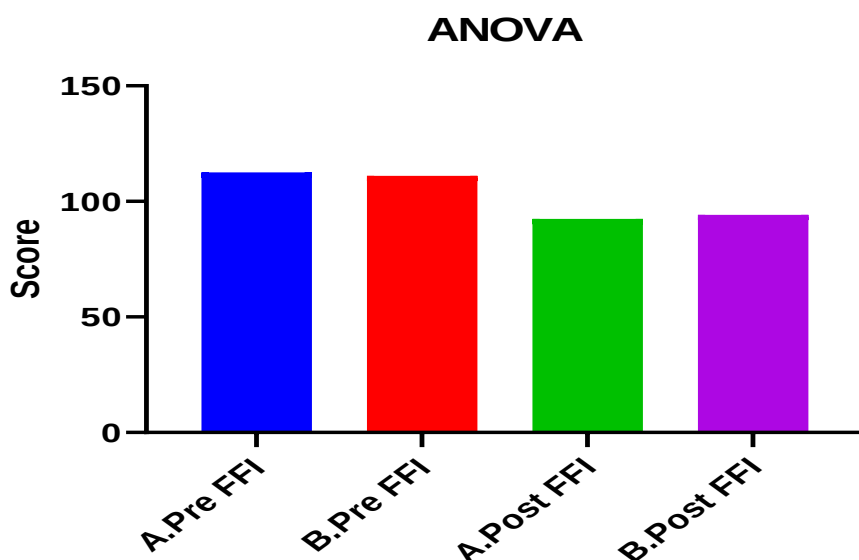
The above table 5 shows significant difference on VAS between Group A and B among patients with plantar fasciitis with P value <0.0001.

Graph 3: Presentation of VAS between Group A and B among patients with plantar fasciitis.

Out come Measures	Exercise Group A and B	Test	Mean	Mean Diff.	R Square	F	P value	Sig. diff. (P < 0.05)
FFI	Kinesio Taping	Pre test	112.6	20.13	0.495	18.32	<0.0001	****
		Post Test	92.47					
	Myofascial Release Technique	Pre test	111.1	20.13				
		Post Test	94.20					

Table 6: ANOVA to compare FFI between Group A and B among patients with plantar fasciitis

The above table 6 shows significant difference on FFI between Group A and B among patients with plantar fasciitis with P value <0.0001.

Graph 4: Presentation of FFI between Group A and B among patients with plantar fasciitis.

RESULTS

Total 15 participants of both genders suffering from plantar fasciitis were included in the study based on specific selection criteria with age group between 19 to 46 years.

In this study pain has reduced with mean difference of 3.400, by Kinesio Taping with P value >0.0001, among patients with plantar fasciitis.

In study pain has reduced with mean difference of 3.133, by Myofascial Release technique with P value 0.0001, among patients with plantar fasciitis.

Foot function has improved with mean difference of 20.13, by Kinesio Taping with P value > 0.0001, among patients with plantar fasciitis.

Foot function has improved with mean difference of, by 16.87, Myofascial Release

Technique with P value >0.0001, among patients with plantar fasciitis.

Comparative study between Group A and Group B showed significant difference in effectiveness of pain and improve foot function with P value >0.0001 respectively among patients with plantar fasciitis.

Kinesio Taping found more effective on reduction of pain and improve foot function among patients with plantar fasciitis with mean difference 3.400 and 20.13 respectively, while compare the mean difference on effect of Myofascial Release technique with 3.133 and 16.87 respectively.

DISCUSSION

The chief objective of this study was to compare the efficacy of myofascial release technique and kinesio taping in patients with plantar fasciitis in reducing the pain intensity and improving the foot function assessed by VAS and FFI respectively .The study was to

detailed and tailored to find which mode of treatment was better in two groups after 4 weeks of treatment.

Overall 30 subjects who met with the inclusion criteria were randomly allocated into two groups. The subjects who fell into age group of 19-46 years of both the sexes and who were suffering from plantar fasciitis were selected. 15 subjects from Group 1 were treated with kinesio taping and 15 subjects from Group 2 were treated with myofascial release technique.

Pre treatment values of pain intensity using VAS and foot function using FFI on baseline, day 5, day 10, and 1 week after were assessed. These values were statistically analysed using repeated measures of paired test and ANOVA test. The statistical analysis is done for both the groups showed reduction in pain intensity and improvements in foot function.

On comparing Group A and Group B showed significant difference in the effectiveness of pain and foot function with the p value >0.0001 , among patients with plantar fasciitis. By Comparing Group A is more effective than Group B.

This study supports the findings, who concluded that subjects with plantar fasciitis showed deficit in dynamic balance and functional performance when compared with healthy subjects¹⁹.

This study also supports the manual stretching is effective in plantar fasciitis when used in combination with conventional therapy and exercises. The technique of kinesio taping including selection taping site, pulling direction and pulling force determines the effectiveness of treating soft tissue lesions. Kinesio taping

was found to be effective in relieving pain in subjects with plantar fasciitis^{25, 26}.

Orlin. MN (2006) studied Taping is often used alleviate stress on the plantar

Fascia ligament since its limit the movement of the fascia. Plantar fascia taping thus can relieve pain and inflammation associated with plantar fasciitis^{27, 28}.

This study supports the findings of the application of kinesio taping was found to be effective in improving balance and functional performance in subjects with plantar fasciitis²⁹.

This study supports the findings of chein-Tsung Tsai et al - 2013 that the treatment of kinesio taping for one week can provide pain relief in patients with plantar fasciitis with a better effect as compared to those who treated with only a traditional physical therapy program^{30,31}

Comparatively there was more reduction of pain(VAS) and improvement of foot function index scale showed significant result in subjects who received both taping than myofascial release technique treatment.

CONCLUSION

This study can be concluded by stating that kinesio taping and both myofascial release technique have got beneficial effect in reducing the pain intensity and improving the foot function in patients with plantar fasciitis.

There was a significant reduction of pain and improvement of foot functional activities of both groups.

Comparatively there was more reduction of pain and improvement of foot functional activities in subjects who received kinesio taping.

REFERENCES

1. Cornwall M, Mcpoil T (1999), plantar fascitis etiology and treatment, J Ortho sports phys Ther; 29 (12):756-60.
2. Crawford F, Atkins D, Edwards J (2002) Intervention for treating plantar heel pain, Foot;11:228-250 .
3. Simon J, Bartold , Plantar heel pain syndrome: overview and management, Journal of bodywork and movement therapies Robert Donatelli , Steven L Wolf,(1990), The biomechanics of the foot and ankle . F A Davis, Philadelpha ;141 – 156.
4. D. Morris, MSc ,Jones, MSc, PT,H. Ryan, PhD, PT(2013),The clinical effects of Kinesio Tex taping :A systemic review. Physiotherapy Theory and practice, 29(4):259-270.
5. Bruna Reclusa Martinez, Isabela Maschk Staboli . Danilo Harudy Kamonseki , Elly Budiman –Mak and Liu Chiao Yi(2016).Validity and reliability of the Foot Function Index (FFI) Questionnaire Brazilian –portuguese version .Martinez et al ,Springerplus 5:1810DOI 10 .1186 /s40064 -016-3507-4 .
6. Amit Chauhan , Haung C K, Priyadarshini Sur ,Role of exercises in Plantar Fasciitis ,Scandinavian Journal of yoga and physiotherapy ISSN :2476-1303
7. Jaspreet Kaur ,Manoj Malik , Monika Rani. (2016) ,A Systemic review on efficacy of kinesio taping in pain management ,Int Physiother. Vol3 (3),355-361.
8. Chien-Tsung Tsai ,MD Wen –Dien Chang Jen –Pei Lee,MD (2010)Effects of short – term treatment with Kinesiotaping for plantar fasciitis .Journal of Musculoskeletal pain ,Vol.18 (1).
9. Mohammad Ali Tahirian, Plantar Fasciitis(2012),Article in journal of research in medical sciences, Source :Pubmed
10. Kuhar S,Subhash K , Chitra J(2007), Effectiveness of Myofascial Release in treatment of plantar fasciitis.Indian journal of physiotherapy and occupational, therapy ;1(3): 221-25.
11. Dunn J E ,Link C L ,Felson D T ,Cincoli M G Keysor J J ,Mc Kinlay J B(2004),Prevalence of foot and ankle conditions in a multi ethnic community sample of older adults .AmJ Epidemio ;159:491 – 498 .
12. BolivarAY, Keenam A M et al ,M unuera VP , Padillo P J(2001),Relationship between tightness of the posterior muscles of the lower limb and plantar fasciitis foot and Ankle International;34(1): 42 -48 .
13. Kain J , Martorello L,Swanson E ,Sego S(2011) ,Compariso of an indirect tri plantar myofascial release techniques and hot packs for increasing range of motion J Bodyw Mov Ther ;15: 63 -67.
14. Harlapur MA, vijay B (2007) , comparison of Myofascial Release techniques and positional release therapy in plantar fasciitis –Aclinical trial IJPOT ;4 (4): 256-265.
15. Riddle DL , Pulisic M , Pidcode P,Johnson(2013),Risk factors for plantar fasciitis : A matched case –control study .The journal of bone and joint surgery ;85(5) :872-877.
16. Wu HC, Chen S Wang G T .Plantar fascia softening in plantar fasciitis with normal b –mode sonography .Skeletal ratio 201; 4:1-5.
17. Patil S S ,Gaigole R(2016) ,Effectiveness of myofascial release technique and taping techniques on pain and disability in

- patients with chronic plantar fasciitis :randomized clinical trial international journal of therapies and Rehabilitation Research: 5 (1):61-65 .
18. Damien Nolan (2009), Effects of taping on plantar pressure pre and post exercise.BMC musculoskeletal disorder, 10:40.
 19. Joel A.Radford(2006),Effectiveness of taping for the short term management of plantar fasciitis .Journal of the American podiatric medical association.,vol 95,6,6525-530 .
 20. H.R.Osborne(2006). Treatment of plantar fasciitis and iontophoresis, Journal Sports medicine, 40,545-549
 21. Urry S(2003) .The effect of plantar fasciitis on vertical foot –ground reaction force Orthopedics and related Research ,;409:175-85.
 22. J.Saxel(2005),Mario Roxas N D By.Taping on the foot in the management of plantar fasciitis ,The foot ;vol 7 ,issue 4, page 205-09.
 23. G.T.Allison(2006),Treatment of plantar fasciitis by taping and iontophoresis. British journal of sports person medicine, 40(60),545-549 .
 24. Veena krithika S et al (2018), . Application of kinesio taping for plantar fasciitis 36(3) :52-55.
 25. McNeill W, Pedersen C. Dynamic tape. Is it all about controlling load? J Bodyw Mov Ther.2016; 20:179–88.
 26. Williams S, Whatman C, Hume PA, Sheerin K. Kinesio taping in treatment and prevention of sports injuries: A meta-analysis of the evidence for its effectiveness. Sports Med. 2012; 42:153–64.
 27. Slevin ZM, Arnold GP, Wang W, Abboud RJ. Immediate effect of kinesiology tape on ankle stability. BMJ Open Sport Exerc Med. 2020; 6:e000604. doi: 10.1136/bmjsem-2019-000604.
 28. Kodesh E, Benzoor MC, Dar G. Effect of dynamic tape on postural sway in individuals with chronic ankle instability. J Bodyw Mov Ther. 2021; 28:62–67. doi: 10.1016/j.jbmt.2021.07.026.
 29. Pawik Ł, Pawik M, Wysoczańska E, et al. In patients with grade I and II ankle sprains, dynamic taping seems to be helpful during certain tasks, exercises and tests in selected phases of the rehabilitation process: A preliminary report. Int J Environ Res Public Health. 2022; 19:5291. doi: 10.3390/ijerph19095291.
 30. Halabchi F, Hassabi M. Acute ankle sprain in athletes: Clinical aspects and algorithmic approach. World J Orthop. 2020; 11:534–58. doi: 10.5312 /wjo.v 11.i12.534.]
 31. Botsis AE, Schwarz NA, Harper ME, et al. Effect of Kinesio® taping on ankle complex motion and stiffness and jump landing time to stabilization in female ballet dancers. J Funct Morphol Kinesiol. 2019; 4:19. doi: 10.3390/jfmk4020019.

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