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Effectiveness of Soft Tissue gliding in bringing about Instant spike of Mobility andInstantaneous relief in pain during Shoulder Abduction Movement: A Promising Case Study.

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Introduction:

Shoulder mobility is crucial for performing various daily activities, and restrictions in this rangeof motion can significantly impact an individual's ability to perform ADLs like combing, shaving, cooking , bathing, dressing ,driving etc.

This study aims to systematically explore the efficacy of soft tissue gliding in improving bothmobility and pain levels during shoulder abduction

Soft Tissue Glides can be applied to treat the following conditions of Shoulder Joint :

a) Tendinopathy[1,2,3]
b) Bursitis[2]
c) Adhesive Capsulitis[4,6]
d) Restricted Range of Motion[4,5]
e) Reducing Pain[6,1]

Shoulder pain constitutes a prevalent reason for visits to primary care and orthopaedic clinics worldwide. The prevalence of shoulder complaints is estimated to range from 7% to 34%, with shoulder impingement syndrome identified as a prominent underlying aetiology. Since its initialdescription in 1852, shoulder impingement syndrome has emerged as the foremost cause of shoulder pain, accounting for a substantial percentage, ranging from 44% to 65%, of all reportedshoulder complaints.[8]

A previous study concluded that MFR **(which includes SOFT TISSUE GLIDES)** on active muscle ATrPs can be used as a first choice of treatment among SIS subjects for reduction of painand improvement of ROM[7]

Aims/Objectives :

- To increase the ROM of Abduction of the affected shoulder joint.
- To reduce the pain threshold of the affected shoulder during abduction movement.
- To increase the Pain onset range during abduction.
- To cut down the economical cost of the complete Rehab program.
- To reduce the time of treatment duration.
- To provide immediate relief from pain

- To Treat the underlying pathology
- To Optimize the tissue health
- To enhance the performance of ADLs like combing, brushing ,dressing, buttoning,driving and recreational activities etc effectively

Study Design/Methodology/Result

➢ Study Design – Case Study Design
➢ Sampling Method – Convenient sampling method
➢ Study population – Patients with Painful Shoulder Abduction & ROM Restriction withPainful Arc.
➢ Sample size- 10
➢ Study setting – Tertiary care hospital
➢Duration of study – 6 months.Inclusion criteria

1. Age between 60-75 yrs.

2. Visual analogue scale ≥ 3

3. Painful arc during shoulder abduction.

4.Participants are both male and female patients.
5.Willingness to participate in the study.

Exclusion criteria

1. Patients with history of surgery, fracture or dislocation
2. Traumatic onset.
3. Massive rotator cuff tears.
4. Rheumatoid arthritis.
5. Shoulder instability
6. Cervical radiculopathy

Outcome measures:

1. Goniomenter
2. Visual analogue scale

Result:

The result indicated that the soft tissue gliding technique brought about average 60% increase inROM & 68 % decrease in Pain Score of patients.

NUMBER OF CASE	PRE TREATMENT	POST TREATMENT	DIFFERENCE	DIFFERENCE PERCENTAGE

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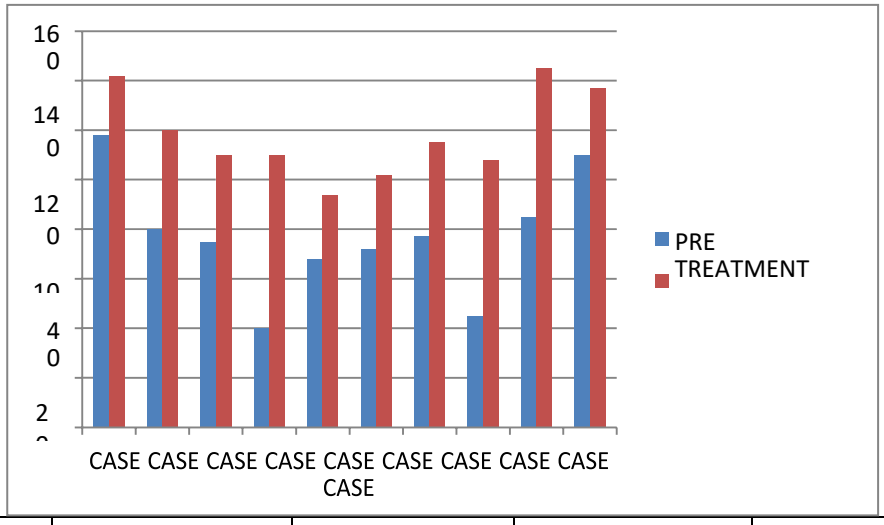
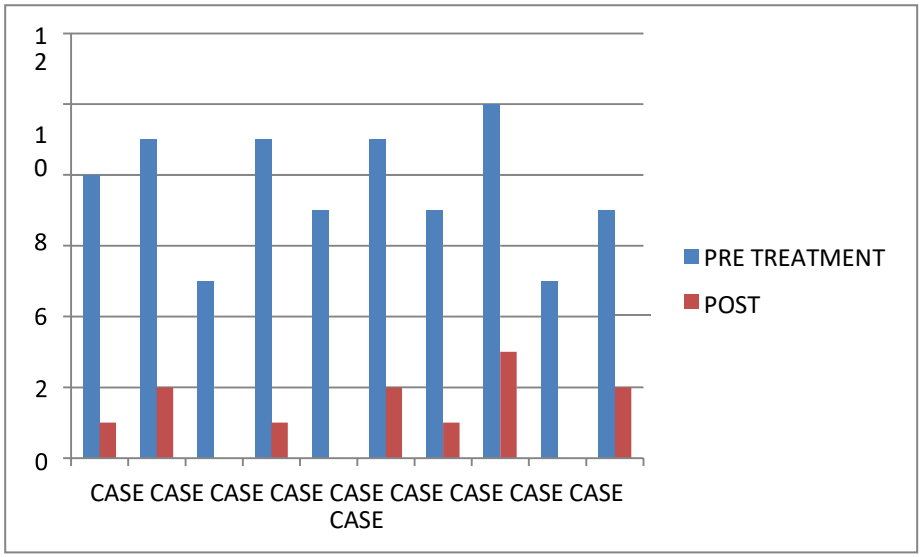
CASE 1	118 Degree	142 Degree	24 Degree	13%
CASE 2	80 Degree	120 Degree	40 Degree	22%
CASE 3	75 Degree	110 Degree	35 Degree	19.5%
CASE 4	40 Degree	110 Degree	70 Degree	39%
CASE 5	68 Degree	94 Degree	26 Degree	14.5%
CASE 6	72 Degree	102 Degree	30 Degree	16.7%
CASE 7	77 Degree	115 Degree	38 Degree	21.2%
CASE 8	45 Degree	108 Degree	63 Degree	35%
CASE 9	85 Degree	145 Degree	60 Degree	33.4%
CASE 10	110 Degree	137 Degrees	27 Degree	15%



NUMBER OF CASE	PRE TREATMENT	POST TREATMENT	DIFFERENCE	DIFFERENCE PERCENTAGE
CASE 1	8	1	7	70%
CASE 2	9	2	7	70%
CASE 3	5	0	5	100%
CASE 4	9	1	8	80%
CASE 5	7	0	7	100%
CASE 6	9	2	7	70%
CASE 7	7	1	6	60%
CASE 8	10	3	7	70%
CASE 9	5	0	5	100%
CASE 10	7	2	5	100%



Discussion

The aim of our study was to investigate the effectiveness of a single session of Tissue Gliding Technique on Range of Motion (ROM) and pain in patients with restricted shoulder abduction.The subject received a treatment regimen involving Tissue Gliding Technique .Our results revealed a significant difference in Range of Motion, in abduction mitigation of Painful Arc. This notable improvement in range of motion can be attributed to the effect of Soft Tissue Gliding.

Sustained pressure applied in related techniques induces reactive hyperaemia, leading to a release of muscle fiber tension. Additionally, increased blood flow facilitates the removal of biochemicals known to accumulate in myofascial trigger points. Another proposed mechanism involves the neurological aspect, where tactile stimulation of a painful area leads to pre-synapticinhibition of slow, paintransmitting nerve fibers. These effects collectively contribute to the analgesic properties of Myofascial release technique(which includes Tissue Gliding Technique).

Adhesions are formed between the fascia and muscles.Tissue gliding technique disengages the adhesion between the muscles and the facia and thus releases the muscle to perform inter facialgliding effectively.

Conclusion:

An experimental study was conducted which included 5 subjects with shoulder abduction restriction and painful arc during abduction.Pre & Post evaluation of pain using VAS and ROMusing Goniometry was conducted .

After that , percentage increase of range was calculated for each case and then mean percentage of all the cases was calculated .The result indicated that the soft tissue gliding technique broughtabout average 60% increase in ROM

For the evaluation of mitigation of pain, pre and post VAS was evaluated and percentage change of VAS score was calculated for each case ,subsequent to which the mean percentage of the group was calculated.The result indicated that soft tissue gliding technique brought about 68

% decrease in Pain Score of patients.

REFERENCES

1. Neer CS. Less frequent procedures In: Neer CS, ed. *Shoulder Reconstruction*. Philadelphia, PA: WBSaunders; 1990:421–485
2. . Ishii H, Brunet JA, Welsh RP, Uhthoff HK. “Bursal reactions” in rotator cuff tearing, the impingementsyndrome, and calcifying tendinitis. *J Shoulder Elbow Surg*. 1997;6(2):131–136. [PubMed] [Google Scholar]
3. Deep Friction Massage to Treat Tendinopathy: A Systematic Review of a Classic Treatment in the Face ofa New Paradigm of Understanding Article in Journal of Sport Rehabilitation · November 2012 DOI: 10.1123/jsr.21.4.343 · Source: PubMed
4. Pak J Med Sci. 2024 Jan-Feb; 40(3Part-II): 526–533. doi: 10.12669/pjms.40.3.7218 PMCID: PMC10862451 PMID: 38356832Deep transverse friction massagein the management of adhesive capsulitis: A systematic review
5. J Phys Ther Sci. 2017 Feb; 29(2): 365–369. Published online 2017 Feb 24. doi: 10.1589/jpts.29.365 PMCID: PMC5333006PMID: 28265175
   Effectiveness of massage therapy on the range of motion of the shoulder: a systematic review and meta-analysis
6. The effect of cyriax soft tissue release and myofascial release on pain pressure threshold, flexibility and muscle length in idiopathic adhesive capsulitis- a comparative study… International Journal of CommunityMedicine and Public Health Makwana A et al. Int J Community Med Public Health. 2023 Nov;10(11):4187-4193
7. Indian Journal of Physiotherapy and Occupational Therapy, April-June 2020, Vol. 14, No. 02 Immediate Effect of Mobilization vs Myofascial Release on Pain and Range of Motion in Patients withShoulder Impingement Syndrome: A Pilot Randomized Trial
8. Creech JA, Silver S. Shoulder impingement syndrome.
9. . Fieseler G, Laudner KG, Irlenbusch L, Meyer H, Schulze S, Delank KS, Hermassi S, Bartels T, Schwesig
   R. Inter-and intrarater reliability of goniometry and hand held dynamometry for patients with subacromialimpingement syndrome. Journal of exercise rehabilitation. 2017 Dec;13(6):704.
10. Bijur PE, Silver W, Gallagher EJ. Reliability of the visual analog scale for measurement of acute pain. Academic emergency medicine. 2001 Dec;8(12):1153- 7.
11. Wilke J, Vogt L, Banzer W. Immediate effects of self-myofascial release on latent trigger point sensitivity: a randomized, placebo-controlled trial. Biology of sport. 2018 Aug 31;35(4):349-54.