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The effect of *Marma* therapy in Student's Elbow i.e., Olecranon Bursitis with special reference to Pain - A Single Case Study

Vivek Singh¹, Supriya Kurane Singh²

¹Assistant Professor, Dept. of Rachna Sharir, Ramkrishna College of Ayurveda and Medical Sciences, Bhopal, Madhya Pradesh, India.

²Assistant Professor, Dept. of Shalya Tantra, Ramkrishna College of Ayurveda and Medical Sciences, Bhopal, Madhya Pradesh, India.

ABSTRACT

Student's elbow, medically known as olecranon bursitis, is a common condition among students and individuals who frequently rest their elbows on hard surfaces while studying or working. This condition often leads to pain, swelling, and restricted joint movement, affecting daily activities and overall well-being. Traditional treatment approaches typically involve rest, anti-inflammatory medications, and physical therapy. However, complementary, and alternative therapies are gaining recognition for their potential in enhancing pain management and accelerating recovery. This study investigates the application of *Marma* therapy, an ancient Indian healing practice rooted in Ayurveda, in the management of student's elbow. *Marma* therapy involves stimulating vital energy points (*Marma* points) on the body to restore balance and promote healing. *Marma* therapy's holistic approach aligns well with the principles of integrative medicine, addressing not only the physical aspect of the condition but also the mental and emotional well-being of the individual. This study emphasizes the need for further research, including randomized controlled trials, to establish the effectiveness of *Marma* therapy in student's elbow. Additionally, practical guidelines for incorporating *Marma* therapy into conventional treatment plans are discussed. The integration of *Marma* therapy into clinical practice holds promise for providing students and individuals suffering from student's elbow with a holistic and personalized approach to pain management and rehabilitation. Hence in this study a clinically diagnosed OPD patient of Student's Elbow is treated with *Marma Chikista* for 15 days provided considerable relief of pain.

Key words: Student's elbow, olecranon bursitis, Marma therapy, Ayurveda, pain management, complementary and alternative medicine, musculoskeletal disorders, integrative medicine.

INTRODUCTION

In the rapidly evolving landscape of education, the pursuit of academic excellence often takes a toll on the physical well-being of students. While much attention has been directed towards mental health issues among the student population, the physical aspect of their

health is equally crucial. One such physical ailment that has gained prominence, especially among Indian students, is "Student's Elbow," also known as "Cubital Tunnel Syndrome."^[1] This condition, characterized by pain, numbness, and tingling in the elbow and forearm, has emerged as a significant concern, impacting students' overall quality of life and academic performance.

In India, where the education system places immense pressure on students to excel academically, the prevalence of Student's Elbow is a matter of growing concern. The combination of prolonged hours spent studying, often in improper postures, and increased use of digital devices such as laptops and smartphones contributes to the heightened risk of developing this condition.

According to recent statistics from healthcare institutions and clinics across India, there has been a

Address for correspondence:

Dr. Vivek Singh

Assistant Professor, Dept. of Rachna Sharir, Ramkrishna College of Ayurveda and Medical Sciences, Bhopal, Madhya Pradesh, India.

E-mail: drviveksingh123@gmail.com

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noticeable increase in the number of cases reporting symptoms related to Student's Elbow, particularly among the student population.

A study conducted in major metropolitan cities of India found that out of 1000 students surveyed, nearly 15% reported experiencing symptoms associated with Student's Elbow. This alarming figure underscores the need for awareness, preventive measures, and appropriate management of the condition. Moreover, the impact of Student's Elbow extends beyond physical discomfort. Students afflicted by this condition often encounter difficulties in taking notes, typing, and engaging in various academic activities, thereby affecting their overall performance, and potentially leading to academic stress and anxiety.

Several factors contribute to the prevalence of Student's Elbow among Indian students. The contemporary academic environment emphasizes digital learning, requiring students to spend extended periods using laptops, tablets, and smartphones. Inadequate ergonomic practices and prolonged static postures while using these devices have been linked to the development of Cubital Tunnel Syndrome.^[2] Additionally, academic pressure and a competitive atmosphere can lead students to disregard physical discomfort in favour of meeting their academic commitments, exacerbating the condition over time.

Recognizing the gravity of the situation, it is imperative to raise awareness about Student's Elbow among both students and educators. Schools, colleges, and universities should integrate ergonomic education into their curricula, educating students about proper posture, device usage, and regular breaks to prevent the onset of this condition.^[3] Furthermore, healthcare professionals should play a pivotal role in diagnosing and providing appropriate interventions for students afflicted by Student's Elbow. Physical therapy, ergonomic modifications, and in severe cases, surgical interventions can help alleviate symptoms and enhance students' academic experience.

Student's Elbow, though often overshadowed by more commonly discussed student health issues, poses a significant threat to the physical well-being and

academic performance of Indian students. The rise in reported cases underscores the urgent need for preventative measures, awareness campaigns, and healthcare interventions to address this condition. As education evolves and digital learning becomes more integral, students and educational institutions must collaborate to ensure that academic pursuits do not come at the cost of physical health. By acknowledging the challenges posed by Student's Elbow and taking proactive steps to mitigate its impact, students can achieve their academic goals without compromising their overall well-being.

There are many conservative treatments which includes rest, epicondylar counterforce braces, NSAIDs, corticosteroid injections, Extracorporeal shock-wave therapy (ECSW), Percutaneous radiofrequency thermal treatment. The use of low-level laser therapy, Acupuncture, Botulinum toxin A injections.^[4] Patients with persistent pain and disability after a course of well-performed conservative treatment are candidates for clinical re-evaluation and, possibly, operative treatment. Open, percutaneous, and arthroscopic approaches have been used.^[5]

Marma is defined as anatomical site where muscles, veins, ligaments, bones, and joints meet.^[6] There are one hundred and seven (107) *Marmas* (vital spots) out of which eleven are present in each limb, twenty-six in trunk (three in abdomen, nine in thorax, fourteen in the back) and thirty-seven in head neck region.^[7]

The methods of *Marma* Therapy have been broadly classified into two categories, i.e., With Medicine (Pharmacological) and Without Medicine (Non-Pharmacological).

Table 1: Classification of Marma therapy (with or without medicine)

With medicine (Pharmacological)	Without medicine (non-Pharmacological)
<ul style="list-style-type: none"> Aroma therapy 	<ul style="list-style-type: none"> <i>Suchi Vedha</i> (piercing)
<ul style="list-style-type: none"> Nasal administration of herbs (<i>Nasya</i>) 	<ul style="list-style-type: none"> <i>Mardana</i> (pressure)
<ul style="list-style-type: none"> Oil massage (<i>Abhyang</i>) 	<ul style="list-style-type: none"> <i>Shatkarma, Bandha</i>

▪ Dry massage (<i>Udvartan</i>)	▪ <i>Yogasana</i>
▪ Coating of herbs (<i>Lepa</i>)	▪ <i>Pranayam</i>
▪ Herbal path (<i>Avgahan</i>)	▪ <i>Dhyan</i> (meditation)
▪ Herbal Drip (<i>Parisheka/Dhara</i>)	▪ <i>Pranic</i> healing

Olecranon bursitis refers to inflammation of the bursa. The superficial location and limited vascularity make the bursa susceptible to trauma and infection. The diagnosis of olecranon bursitis is often made by clinical evaluation alone without the aid of objective diagnostic testing. However, diagnostic tests become very important when considering the risk of alternative diagnoses or the presence of infection.^[8,9] As olecranon bursitis is an Inflammation of the olecranon bursa and triceps brachii tendon involving their attachment to the superior surface of the olecranon process of the ulna so it is *Snayu* (muscle & tendon), *Asthi* (bone) and *Sandhi* (joint) situated disease. In Ayurveda, *Sushruta* defined *Marma* as those points of the human body which cause fatality when injured are known as *Marma*. *Sushruta* also mentioned that *Marmas* are situated at *Sira* (blood vessels), *Snayu* (muscles & tendons), *Asthi* (Bones) and *Sandhi* (Joints). These *Marmas* can cause pain, disability, and fatality also when injured. These points are the seats of the vital force. So mixed *Marma* therapy i.e., oil massage with *Mahanarayana Taila* and then pressure on *Marma* point is selected for this tennis elbow patient.

CASE STUDY

A female medical student of 22yr came to the surgery OPD of our Ayurveda Medical College on 17/01/2023. She complained of pain at left elbow since last 15 days. But pain was at peak since last 2-3 days. Along with the pain she was having redness, temperature and swelling at the olecranon process. There was not any chronic medical history, nor she was on any medicines. She had taken NSAIDs and was using Shoulder brace as per given treatment in private clinic but didn't get complete relief. So, she came to surgery OPD. On clinical examination mild swelling and tenderness was present at the right elbow. Flexion, extension of right

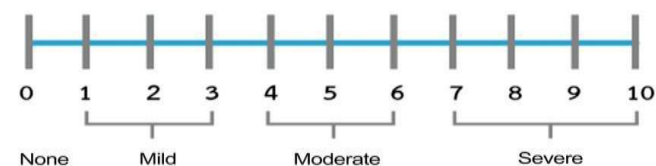
elbow was not restricted. Supination and pronation of right forearm was also normal. Routine blood investigations i.e., CBC, BSL (F & PP), Thyroid profile was done which was normal. So, *Marma* therapy was planned for the patient.

After careful assessment and examination, patient was treated with *Marma Chikitsa* for 15 days. With this short duration of treatment protocol, patient got relief from pain, swelling and redness decreased and increased the strength of gripping power in left hand without any untoward effect.

Objective criteria

NRS (Numerical Rating Scale) for assessment of pain

NRS (Numerical Rating Scale)



Grade

- No pain
- 1-3 mild pain
- 4-7 moderate pain
- 8-10 severe pain

Procedure

In this therapy, first it is necessary patient relax the patient. Patient should be in proper sitting posture. For this disorder, following *Marma* were chosen for therapy; *Talhridaya*, *Manibandha*, *Indrabasti*, *Kurpara*, *Aani*, *Ansa* of the left hand. In the procedure of *Marma* stimulation, each *Marma* was stimulated 12 times in one sitting for first 3 days and then in next 12 days, *Marma* was stimulated 15 times in one sitting. Patient was advised to avoid excessive household works for 15 days.

The exact location of the *Marma* points is as follows.

1. *Ani* - 4 fingers above the elbow joint
2. *Karpur* - elbow joint
3. *Indrabasti* - 4 fingers below the elbow joint

4. *Talrhidya* - Centre of the palm
5. *Kshipra* - At the root of thumb
6. *Manibandha* - at the wrist joint

Taila applied - Mahanarayan Tail (oil)

OBSERVATION

Table 2: Pain score by NRS

Day	Date	Pain score by NRS
1	15/03/2023	10 (severe pain)
3	17/03/2023	8 (severe pain)
4	18/03/2023	6 (moderate pain)
7	21/03/2023	5 (moderate pain)
11	25/03/2023	4 (moderate pain)
14	28/03/2023	3 (moderate pain)
15	29/03/2023	1 (mild pain)

RESULT

In first sitting, patient got slight relief in the pain left hand but after the 3rd sitting on 4th day patient reported magical changes in both pains as well the redness and swelling at the elbow joint. After the 8th day patient got around 50 percent relief. So, the therapy was given to patient for 15 days. Finally, patient can do her work without any pain, and she can do every possible natural movement of hands at elbow joint. She was also advised to not rub the elbow joint against the bench or ground.

DISCUSSION

Olecranon bursitis is a disease which can be characterized by inflammation of the olecranon bursa which is most often due to microtrauma. Although it is a common condition amongst students, there is a lack of evidence-based research for the management of olecranon bursitis.^[10] The condition is often self-limited and can be treated with conservative methods such as rest, ice, compression, orthosis wear, and nonsteroidal anti-inflammatory medications. Some of the research studies have shown decrease of symptoms with

intra-bursal corticosteroid injections and surgical removal of the bursa. More recent literature has showed that adverse effects of intra-bursal injections and surgery compared with noninvasive management for initial treatment of nonseptic olecranon bursitis. To make a better customized decision-making, it is important that hand surgeons understand the comparative efficacies of each option for management of nonseptic olecranon bursitis.^[11] *Marmas* are crucial points that regulate bodily functions and are considered centers for *Prana*. They can be utilized for both the diagnosis and treatment of diseases, as well as for promoting overall health and longevity. *Marmas* are applicable to all Ayurvedic therapies, ranging from simple self-treatments to complex clinical procedures, and are considered the main pillars of Ayurvedic clinical procedures. *Marma* therapy can be used in conjunction with all Ayurvedic *Chikitsa*, including *Panchakarma* and *Yoga*. *Marma Chikitsa* is the most effective technique for achieving the effects of *Yoga* and *Pranayama*. It is an advanced technique of Ayurveda that is used for the diagnosis and treatment of specific diseases and for reducing pain.^[12] Pain is an extraordinary sensation that could range from slight to intense ache. Ache has both physical and emotional components. The physical part of ache effects from nerve stimulation. In *Ayurveda* pain is correlated with *Vedana / Shula*. Said feeling is maximally expressed by *Vedana* in Ayurveda literature.^[13] As per Ayurvedic concept, this condition may develop with the vitiation of *Vata* with *Anubandha* of *Pitta* and *Kapha Dosh* (one of the responsible factors for production of *Ama* and *Srotovaigunya*). *Vata* and *Kapha Dosh* have been considered the important factors for causation of *Shoth* (inflammation) and *Shoola* (pain) in the body and the *Pitta Dosh* have been considered the important factors for the causation of Redness and Increased temperature. To treat such condition, the *Marma Chikitsa* emerged in present days. Therefore, to pacify the vitiated *Vata*, *Pitta* and *Kapha Dosh*, *Marma Chikitsa* was done. There are no any studies been done in such manner to see the effect of *Marma* therapy in Olecranon Bursitis (Student's Elbow).

This report is a lead from a single-case study and to arrive at a certain conclusion, clinical trials with an adequate sample size is recommended.

DECLARATION OF PATIENT CONSENT

Authors certify that they have obtained informed patient consent form, where the patient has given his consent for reporting the case along with the images and other clinical information in the journal. The patient/ caregiver understands that his name and initials will not be published, and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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