

**THE EFFECT OF LEECH THERAPY IN THE MANAGEMENT OF WRIST  
TENDINITIS: A CASE STUDY****Bhandare Madhuri Vitthalrao\*<sup>1</sup> and Mhatre Sagar Raghunath<sup>2</sup>**<sup>1</sup>Assistant Professor, Shalyatantra Dept., R. A. Podar Medical College (Ayu) Worli, Mumbai, Maharashtra, India.<sup>2</sup>Associate Professor, Kaumarbhitya Dept. Yashwantrao Chavan Medical College, Aurangabad, Maharashtra, India.**\*Corresponding Author: Dr. Bhandare Madhuri Vitthalrao**

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**ABSTRACT**

Chronic wrist pain can be difficult to manage and the differential diagnosis is extensive. The prevalence rate of wrist tendinitis is 0.5% among men and 1.3% among women. Tendinitis is the inflammation of a tendon. It happens when a person overuses or injures a tendon. Risk factors include high force, repetition & awkward positions. Clinical presentation includes localized pain and tenderness. Conventional treatments are generally employed empirically to fight pain & inflammation. However these treatments are not completely satisfactory and the recurrence of symptoms is common. According to Ayurveda Sushruta mentioned blood letting in *ekadeshaj shotha* i.e. inflammation defined to one place. Hence in this case study a patient of wrist tendinitis is treated with leech therapy provided considerable relief of pain.

**KEYWORDS:** Tendinitis, leech therapy, *shotha*, inflammation.**INTRODUCTION**

Tendinitis is the inflammation of a tendon and results from micro-tears that happen when the musculotendinous unit is acutely overloaded with a tensile force that is too heavy and/or too sudden.<sup>[1]</sup> The most common symptom of wrist tendinitis is pain in and around the wrist area. This pain generally worsens when performing activities involving the wrist. Other symptoms include warmth of tendons, redness of tendons, grinding sensation and swelling around the wrist joint.<sup>[2]</sup>

Now a days treatment modalities have mainly been aimed at controlling the inflammation. The mainstays of treatment have included rest, NSAIDs and periodic local corticosteroid injections. More recently the term tendinopathy has been advocated to describe the variety of painful condition that develop in and around tendons in response to overuse.<sup>[3]</sup>

Raktamokshana is a unique para-surgical measure indicated in various diseases. Of them, Jalaukavacharan or leech therapy has gained greater attention globally, because of its medicinal values. The saliva of leech contains numerous biologically active substances, which has anti-inflammatory as well as anesthetic properties,<sup>[4]</sup> and in Ayurveda Sushruta mentioned blood letting in *ekadeshaj shotha* i.e. inflammation defined to one place.<sup>[5]</sup>

**Case history**

The female patient of 59 yrs came to the surgery OPD on 02/02/2018. She has a history of trauma at Rt wrist joint before 2 months. But since last 7 days she was suffering from pain and swelling at Rt wrist joint. She was a known case of RA since last 12 yrs. She had already taken NSAIDs in private clinic but she didn't get relief. So she came to surgery OPD. On clinical examination swelling and tenderness was present at the Rt wrist joint. The movements of wrist joint was also restricted.

Routine blood investigations i.e. CBC, BSL (F & PP), CT, BT, HIV, HbSag was done which was normal. So leech therapy is selected for treatment.

**MATERIAL AND METHODS**

*Hirudo medicinalis* leeches which are indicated for the medicinal use are applied at the interval of one day from 1/02/2018 to 7/02/2018 locally on Rt wrist joint. Pain is measured with the help of NRS (Numerical rating score scale) before leech therapy and after 48hrs of leech therapy.

**Day regime: 4 days**

**Follow up:** 24 hrly, After 15 days, 1month and 2 months

**Leeches applied:** 2 of medium size

**Amount of blood:** Approximately 10 ml

**Grade**

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

**Numerical Rating Score**

**Table 1: Assessment of pain.**

Day	Date	Pain score by nrs
0	1/02/2018	10 (severe pain)
1	3/02/2018	06 (moderate pain)
2	5/02/2018	03 (mild pain)
3	7/02/2018	00 (no pain)

**OBSERVATION AND RESULTS**

Observation and results indicated in table 1 which shows pain reduces in 4 days with leech therapy. On local examination there was no inflammation and tenderness. Wrist movements was normal. On follow up of 15 days, one month and 2 months patient has no recurrence of pain and inflammation

**DISCUSSION**

Since ancient times, leeches were used to treat many illnesses and diseases through bloodletting. leech therapy is sometimes the best alternative in treating illnesses and even surpasses pharmacological treatments. Leech therapy diminishes inflammation, swelling and pain of an injured area leading to an accelerated normal function.<sup>[6]</sup> sushruta indicated leech therapy in the early stage of shotha (inflammation) to reduce pain and inflammation.<sup>[7]</sup>

Tendinitis is the inflammation of the tendon and leech therapy has been used to treat many inflammatory process. The observations in table 1 indicate the reduction of pain in the tendinitis. The signs like inflammation and tenderness came to normal. As the inflammation and pain subsides the Rt. wrist joint movement i.e. flexion and extension became normal and the goal of the treatment is achieved. In the present study the treatment effect can be due to the leech saliva which contains more than 100 bioactive substances. These are responsible for various therapeutic benefits like anticoagulant, anti-inflammatory, anesthetic, thrombolytic, vasodilator and anti-edematous, bacteriostatic and blood and lymph circulation enhancing properties. Leech therapy have beneficial effect as adjuvant therapy on inflammatory conditions, rheumatoid arthritis and tendinitis.<sup>[8]</sup>

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