WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 10, Issue 13, 2138-2145. Case Study ISSN 2277– 7105

AYURVEDIC MANAGEMENT OF CHRONIC DVT: A CASE REPORT

Dr. Sharayu Kachole*, Dr. Niranjan Rao and Dr. Padmakiran C.*****

*3rd Year MD Scholar, PG Department of Panchakarma, SDMCA Udupi.

**Professor and HOD, PG Department of Panchakarma, SDMCA Udupi.

***Associate Professor, PG Department of Panchakarma, SDMCA Udupi.

Article Received on
20 Sept. 2021,

Revised on 10 October 2021,
Accepted on 30 October 2021

DOI: 10.20959/wjpr202113-22250

***Corresponding Author**
Dr. Sharayu Kachole
3rd Year MD Scholar, PG Department of Panchakarma, SDMCA Udupi.

ABSTRACT

Deep Vein Thrombosis is a condition when a thrombus lodges in the deep veins, most commonly of the lower limbs, and leads to venous insufficiency. Chronic DVT i.e. older than 2 months gives rise to complications like pain, edema, venous ulcers, varicosities and thrombophlebitis. The present is a case of a 48 year old female diagnosed with chronic DVT in her left lower limb that was managed successfully with ayurvedic shamana and shodhana therapy.

KEYWORDS: Deep vein thrombosis, Vatarakta, Basti, Manjisthadi Kshara Basti.

INTRODUCTION

The true incidence of DVT in the population is difficult to assess. Autopsy studies have been of little use, since DVT in itself is not often fatal. But multiple studies provide the necessary evidence to convincingly show that venous thromboembolic disease is a major health problem that affects all ages and exacts considerable morbidity and mortality. The Virchow triad explains vein wall damage, stasis and hypercoagulability as pathophysiological factors that alone or in combination promote the development of venous thrombosis. Acute and timely diagnosis and treatment of DVT are essential to reduce the incidence of pulmonary embolism and its associated mortality, relieve acute symptoms in the leg and prevent further extension of DVT to more proximal veins.[1]

Charaka while explaining the Samprapti of Vatarakta mentions that due to Hetus like Ati Kashaya, Katu, Tikta, Alpa Ahara etc lead to vitiation of Vata Dosha while at the same time Hetus like Ati Ambu Krida, Plavana, Ushna Sevana, Vegavarodha etc can lead to Rakta Dushti. When this Vruddha Vata causes Avarana of vitiated Rakta Dhatu, the Path i.e the

Vatavahi Srotas as well as the Raktavahi Siras is obstructed thereby leading to the Avaranajanya Vatarakta Vyadhi. Understanding the involvement of Vata Dosha alongwith Rakta Dhatu and Avaranajanya Samprapti in the Siras, DVT can be considered as Vatarakta.[2]

A Tikshna Shodhana in the form of Kshara Basti explained in Chakradatta alongwith Pariseka and Agnichikitsa Lepa helped to release the Margavarodha, acted as Vata Shamana as well as Rakta Prasadana in the present case showing improved results.

CASE REPORT

Chief complaints

A 48 years female patient presented to the OPD of SDM Ayurveda Hospital, Udupi with the complaints of pain in her left lower limb associated with slight swelling, varicosity and mild dark reddish discoloration since 4 months.

Detailed history

Patient is a K/C/O DM since 8 years and varicose veins since 5 years. She was apparently normal 4 months ago and then suddenly started getting throbbing type of pain in her left lower limb. She consulted a local physician and was prescribed routine analgesics. The intensity of pain increased over the course of period and she developed swelling and redness below knee on the same leg. When the patient approached us, she was advised Doppler study of her both lower limbs on 13/1/2021 and it revealed a chronic Deep Vein Thrombosis in the left Popliteal Vein, Thrombophlebitis of left Short Saphenous Vein and Cellulitis of left calf. She was started on anticoagulants and Ayurvedic medication together. The patient was observed for any signs to progress in the occlusion or dislodgement of the thrombosis with a regular follow up to OPD. On getting confirmation of no progress symptomatologically, she was advised admission in SDM Ayurveda Hospital for further management of the same. The above symptoms were present on the day of admission.

Past history

K/C/O DM since 8 years on regular medication T Glimepride (1 mg) + Metformin (500 mg) 1 BD

K/C/O DVT Left Popliteal Vein since 2 months. On medication T Ecosprin 75 mg 1 OD

Family history

Father, Mother- K/C/O DM

Menstrual history

Menopause attained 3 years ago.

Examination

CNS	HMF intact, No sensory or motor deficit
CVS	S1 S2 heard, No added sounds heard
RS	NVBS heard
P/A	Soft, Non- tender, No organomegaly
O/E	Tenderness: + Warmth: + Erythema: + Cyanosis: Absent Edema: Present. Non pitting Varicosity: ++ Homans sign (Sudden dorsiflexion of ankle joint with the knee flexed to 30^0 produces discomfort in the upper part of the calf) – Absent Louvel sign (Worsening of pain along the course of a thrombotic vein by coughing or sneezing)- Absent Lowenberg sign (After inflation og sphygmomanometer cuff around each calf, pain is experienced in the affected calf at a lower pressure than in the unaffected one)- Absent

Investigations

24/03/2021- Haemogram, FLP, RFT and LFT were within normal limits

ESR- 40 mm/1 hr, CRP- Negative

Diagnosis: Chronic DVT of Left Popliteal Vein/ Vatarakta

Intervention

The patient was admitted in the Hospital on 24/03/2021

Treatment advised on admission				
Panchakarma	Agni chikitsa lepa	Brihat Agnimantha, Kshudra Agnimantha, Nirgundi, Papata, Bandha, Tulasi as wet drugs and Haridra, Maricha, Lashuna, Sarshapa and Lavanga in dry form.	External application to whole body for 4 hours for 7 days. Thickness of lepa: Ardra mahisha	Laghu, Supachit aahara was advised.

<table>
<tr><td></td><td></td><td></td><td>charma</td><td></td></tr>
<tr><td></td><td>Matra basti</td><td>30 ml Dhanvantara taila</td><td>(30 mins after lunch) At 2 pm</td><td>Average basti retention time was 6 hrs.</td></tr>
<tr><td></td><td>Manjisthadi Kshara Basti</td><td>
<table>
<tr><th>Dravya</th><th>Matra</th></tr>
<tr><td>Madhu</td><td>80 ml</td></tr>
<tr><td>Saindhava Lavana</td><td>5 g</td></tr>
<tr><td>Moorchita Tila Taila</td><td>60 ml</td></tr>
<tr><td>Kshara Basti Kalka:
Manjistha (Rubia cordifolia)
Haritaki (Terminalia chebula)
Amalaki (Phyllanthus emblica)
Bibhitaki (Terminalia bellerica)
Nimba (Azadirachta indica)
Shatapushpa (Anethum Sowa)</td><td>40 g</td></tr>
<tr><td>Manjisthadi Kwatha:
Manjistha (Rubia cordifolia)
Haritaki (Terminalia chebula)
Amalaki (Phyllanthus emblica)
Bibhitaki (Terminalia bellerica)
Katukarohini (Picrorhiza kurroa)
Amritha (Tinospora cordifolia)
Nimba (Azadirachta indica)
Vacha (Acorus calamus)
Daruharidra (Berberis aristata)

Chaturtha Avashesha kashaya was prepared using 100 g of these above drugs together and 400 ml water.</td><td>100 ml</td></tr>
<tr><td>Gomutra</td><td>100 ml</td></tr>
<tr><td>Kanji</td><td>100 ml</td></tr>
<tr><td>Total</td><td>480 ml</td></tr>
</table>
</td><td>7.30 am on empty stomach</td><td>Average basti retention time 4 mins.</td></tr>
</table>

	Pariseka	Dhanyamla Dhara	At 10 am for 7 days for 30 mins	Laghu, Supachit aahara was advised.
Shamana	Internal Medication	Amritarishta	15 ml TDS after food	With lukewarm water
		Kaishora Guggulu	2 TDS after food	With lukewarm water

Course of basti chikitsa

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
	MK Basti	MK Basti	MK Basti	MK Basti	MK Basti	MK Basti	Matra Basti
Matra Basti	Matra Basti	Matra Basti	Matra Basti	Matra Basti	Matra Basti	Matra Basti	Matra Basti

Medicine advised on discharge

Internal Medication	Brihat Vata Chintamani with Gold	1 OD on empty stomach in the morning	With lukewarm water
	Amritarishta	3 Tsf TDS after food	With lukewarm water
	Kaishora Guggulu	2 TDS after food	With lukewarm water
	Avipattikara Churna	5 g BD after food	With lukewarm water

RESULT

At the end of 7 days of Panchakarma course, patient noticed reduction in the swelling and pain in her left lower limb. O/E Erythema, tenderness, warmth and swelling reduced significantly. Patient was able to walk for comfortably.

Date of follow up	Prescription	Observation
14/04/2021	1) Brihat Vata Chintamani with Gold 1 OD on empty stomach in the morning 2) Amritarishta 3 tsf TDS after food 3) Kaishora Guggulu 2 TDS after food 4) Avipattikara Churna 5 g BD after food	Pain in left limb reduced significantly. Patient was able to walk for longer distance without getting pain.
28/04/2021	Same as above	Swelling in left limb resolved completely.

DISCUSSION

Deep Vein Thrombosis results from blood clot formation within large veins, usually in the legs. Pulmonary Embolism which is also included in under the heading of Venous Thromboembolism, is the most critical complication of DVT and can prove fatal. In the absence of PE, the major complication of DVT is postthrombotic syndrome, which causes chronic leg swelling and discomfort due to damage to the venous valves of the affected leg.

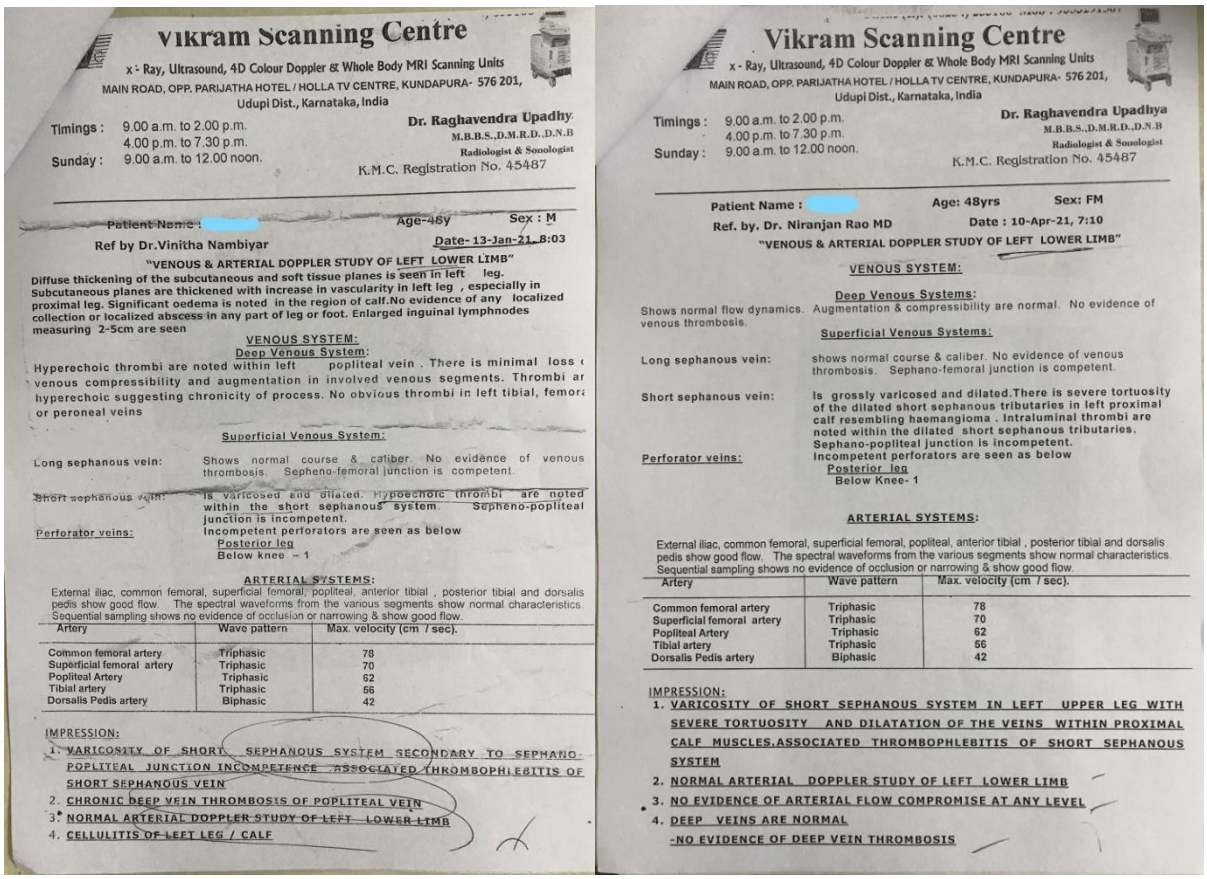
In its most severe form, post thrombotic syndrome causes skin ulceration. History of progressive lower calf discomfort, mild calf tenderness on physical examination is suggestive of DVT. Venous ultrasonography can detect DVT by demonstrating loss of normal venous compressibility. The exact site of thrombose, the extent of occlusion can be well understood with the help of Venous Doppler study.

Gambhira Vatarakta which is manifestated with signs and symptoms like Kathina Shotha, Antar Peeda, Shyava or Tamra Twak, Daha, Toda, Sphurana can be correlated with the signs of Venous Hypertension or Venous Thromboembolism. Due to Santarpanottha Nidanas, Vata Dushti leads to kathinya and rukshata in the Siras thereby causing Kha Vaigunya. The Rakta dushti is seen due to the same Santarpanottha as well as Pitta Dushti Karanas. The vitiated Vata causes Avarana in these Raktavahini Siras. The ruksha, vishada guna of vata leads to shoshana of rakta thereby leading to clot formation which can be understood as a thrombose. Hence a Margavarodhajanya samprapti of Vatarakta vyadhi is seen here.

Contemporary science deals with Venous thromboembolism with anticoagulation which is the mainstay of therapy. Although anticoagulants do not resolve existing clots in DVT directly, they limit further thrombus formation and allow fibrinolysis to occur.[5] Understanding the Santarpanajanya hetus and Avarodhajanya Samprapti, Apatarpana in the form of Shodhana was planned in this patient. After giving conservative treatment initially, the patient was observed to note the progression of the condition. Once, she was symptomatically stable, the patient was advised for admission and Shodhana treatment. The treatment was based upon the lines of Vatarakta Chikitsa of Acharya Charaka. Kshara basti as told by Chakradatta was implemented to get the Ksharana required to resolve the Margavarodha. Manjisthadi Kwatha as per Sharangadhara was chosen as the Kwatha for this Basti to get Raktaprasadana as well as Vata Shamana effect. The other contents of Manjisthadi Kshara Basti viz Kalka, Gomutra and Kanji contributed to the required Lekhana and Shodhana effect. Bahyaparimarjana chikitsa in the form of Agnichikitsa Lepa and Pariseka in the form of Dhanyamladhara were also given following the treatment protocol of Vatarakta.

Amruta is mentioned as the drug of choice in Vatarakta, hence it was prescribed in the form of Amritarishta as mentioned in Jwara rogadhikara of Bhaishajya Ratnavali. The phalashruti of Kaishora Guggulu includes Tridoshaja Vatarakta. Hence it was continued as medicine on discharge also. Brihat Vata Chintamani, mentioned in Bhaishajya Ratnavali Vataroga

Adhikara was prescribed for its main action on Vata Dosha. When given on empty stomach early morning, it acts as best Rasayana and gives long term effect. Continued administration of Avipattikara Churna ensures that Vata anulomana and Koshta shuddhi keeps a check on Vata Dosha.



Vikram Scanning Centre

x - Ray, Ultrasound, 4D Colour Doppler & Whole Body MRI Scanning Units

MAIN ROAD, OPP. PARIJATHA HOTEL / HOLLA TV CENTRE, KUNDAPURA- 576 201, Udupi Dist., Karnataka, India

Timings : 9.00 a.m. to 2.00 p.m. 4.00 p.m. to 7.30 p.m.
Sunday : 9.00 a.m. to 12.00 noon.

Dr. Raghavendra Upadhya
M.B.B.S.,D.M.R.D.,D.N.B
Radiologist & Sonologist
K.M.C. Registration No. 45487

Patient Name : [redacted] Age-48y Sex : M
Ref by Dr.Vinitha Nambiyar Date- 13-Jan-21, 8:03

"VENOUS & ARTERIAL DOPPLER STUDY OF LEFT LOWER LIMB"

Diffuse thickening of the subcutaneous and soft tissue planes is seen in left leg. Subcutaneous planes are thickened with increase in vascularity in left leg , especially in proximal leg. Significant oedema is noted in the region of calf.No evidence of any localized collection or localized abscess in any part of leg or foot. Enlarged inguinal lymphnodes measuring 2-5cm are seen

VENOUS SYSTEM:

Deep Venous System:

Hyperechoic thrombi are noted within left popliteal vein . There is minimal loss of venous compressibility and augmentation in involved venous segments. Thrombi are hyperechoic suggesting chronicity of process. No obvious thrombi in left tibial, femoral or peroneal veins

Superficial Venous System:

Long sephanous vein: Shows normal course & caliber. No evidence of venous thrombosis. Sepheno-femoral junction is competent.

Short sephanous vein: Is varicosed and dilated. Hypoechoic thrombi are noted within the short sephanous system. Sepheno-popliteal junction is incompetent.

Perforator veins: Incompetent perforators are seen as below
Posterior leg
Below knee - 1

ARTERIAL SYSTEMS:

External iliac, common femoral, superficial femoral, popliteal, anterior tibial , posterior tibial and dorsalis pedis show good flow. The spectral waveforms from the various segments show normal characteristics. Sequential sampling shows no evidence of occlusion or narrowing & show good flow.

Artery	Wave pattern	Max. velocity (cm / sec).
Common femoral artery	Triphasic	78
Superficial femoral artery	Triphasic	70
Popliteal Artery	Triphasic	62
Tibial artery	Triphasic	56
Dorsalis Pedis artery	Biphasic	42

IMPRESSION:
1. VARICOSITY OF SHORT SEPHANOUS SYSTEM SECONDARY TO SEPHANO POPLITEAL JUNCTION INCOMPETENCE ASSOCIATED THROMBOPHLEBITIS OF SHORT SEPHANOUS VEIN
2. CHRONIC DEEP VEIN THROMBOSIS OF POPLITEAL VEIN
3. NORMAL ARTERIAL DOPPLER STUDY OF LEFT LOWER LIMB
4. CELLULITIS OF LEFT LEG / CALF

Vikram Scanning Centre

x - Ray, Ultrasound, 4D Colour Doppler & Whole Body MRI Scanning Units

MAIN ROAD, OPP. PARIJATHA HOTEL / HOLLA TV CENTRE, KUNDAPURA- 576 201, Udupi Dist., Karnataka, India

Timings : 9.00 a.m. to 2.00 p.m. 4.00 p.m. to 7.30 p.m.
Sunday : 9.00 a.m. to 12.00 noon.

Dr. Raghavendra Upadhya
M.B.B.S.,D.M.R.D.,D.N.B
Radiologist & Sonologist
K.M.C. Registration No. 45487

Patient Name : [redacted] Age: 48yrs Sex: FM
Ref. by. Dr. Niranjan Rao MD Date : 10-Apr-21, 7:10

"VENOUS & ARTERIAL DOPPLER STUDY OF LEFT LOWER LIMB"

VENOUS SYSTEM:

Deep Venous Systems:

Shows normal flow dynamics. Augmentation & compressibility are normal. No evidence of venous thrombosis.

Superficial Venous Systems:

Long sephanous vein: shows normal course & caliber. No evidence of venous thrombosis. Sephano-femoral junction is competent.

Short sephanous vein: Is grossly varicosed and dilated.There is severe tortuosity of the dilated short sephanous tributaries in left proximal calf resembling haemangioma . Intraluminal thrombi are noted within the dilated short sephanous tributaries. Sephano-popliteal junction is incompetent.

Perforator veins: Incompetent perforators are seen as below
Posterior leg
Below Knee- 1

ARTERIAL SYSTEMS:

External iliac, common femoral, superficial femoral, popliteal, anterior tibial , posterior tibial and dorsalis pedis show good flow. The spectral waveforms from the various segments show normal characteristics. Sequential sampling shows no evidence of occlusion or narrowing & show good flow.

Artery	Wave pattern	Max. velocity (cm / sec).
Common femoral artery	Triphasic	78
Superficial femoral artery	Triphasic	70
Popliteal Artery	Triphasic	62
Tibial artery	Triphasic	56
Dorsalis Pedis artery	Biphasic	42

IMPRESSION:
1. VARICOSITY OF SHORT SEPHANOUS SYSTEM IN LEFT UPPER LEG WITH SEVERE TORTUOSITY AND DILATATION OF THE VEINS WITHIN PROXIMAL CALF MUSCLES.ASSOCIATED THROMBOPHLEBITIS OF SHORT SEPHANOUS SYSTEM
2. NORMAL ARTERIAL DOPPLER STUDY OF LEFT LOWER LIMB
3. NO EVIDENCE OF ARTERIAL FLOW COMPROMISE AT ANY LEVEL
4. DEEP VEINS ARE NORMAL
-NO EVIDENCE OF DEEP VEIN THROMBOSIS

CONCLUSION

A successful balance of Lekhana, Vata Shamana and Rakta Prasadana karma was achieved in the present case of Chronic DVT with the help of Shamana and Shodhana therapy based on Vatarakta Chikitsa, giving the patient significant relief in her symptoms and also preventing any future possible complications.

REFERENCES

1. Kahn SR. The Clinical Diagnosis of Deep Venous Thrombosis: Integrating Incidence, Risk factors, and Symptoms and Signs. Arch Intern Med., 1998; 158(21): 2315-2323. https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/210568

2. Agnivesha. “Charaka Samhita”. Revised by Charaka and Dridhabala with Ayurveda Dipika commentary of Chakrapanidatta. Varanasi: Chaukhamba Sanskrit Samsthana; 2013. P-216.
3. “Chakradatta”, translation by Indradev Tripathi. Varanasi: Chaukhamba Sanskrit Sansthan; 2005. P-455.
4. “Sharangdhar Samhita”, translation by Brahmanand Tripathi. Varanasi: Chaukhamba Surbharti Prakashan; 2007. P-153.
5. “Harrison’s Manual of Medicine”, Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo: 20th ed. McGraw Hill Education, 2020. P-755.