

DEEP VEIN THROMBOSIS (DVT); A CASE STUDY

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ABSTRACT

Deep vein thrombosis is the formation of a blood clot within a deep vein, most commonly in the legs. Here we are discussing a case study of 45 years male suffering from Deep Vein Thrombosis (DVT) in left sided external iliac vein with having specific disease illness history of trauma. This was confirmed by Venous Doppler of leg of left side. Anticoagulants are given in such cases from modern medicine side. The patient was not responding to any kind of treatment on the contrary the condition was worsening day by day since last 1½ years so he came to us for management. DVT according to *Ayurved* can be correlated with *Siraj Vata* or *Siraj Granthi*. Considering the vitiation of *Rakta*, *Vata* and *Sira* the concept of management was applied

accordingly. For the same purpose *Jalaukavacharan* and *Virechan* along with *Shaman Chikitsa* was administered in the patient. Significant recovery by *Ayurvedic* management in clinical assessment in terms of Venous Doppler, girth of leg with discolouration of affected leg was achieved which is presented in full paper.

KEYWORDS: DVT, *Siraj Vata*, *Siraj Granthi*, *Virechan* & *Jalaukavacharan*.

INTRODUCTION

The term DVT medically refers to the formation of a blood clot within deep veins. The most common incidences occur in the legs. The frequent causes of DVT are major surgery, cancer, pregnancy, trauma, anti-phospholipids syndrome, central venous catheters, combined oral contraceptive, auto-immune diseases, inflammatory diseases, obesity, infections, HIV, polycythemia vera, hormonal replacement therapy, old age etc. In modern science anti-coagulant treatment is stated for it.

The prevalence rate of acute DVT without pulmonary emboli (PE) and acute DVT with PE were reported in 64%, 23% respectively in India. Pulmonary embolism is common complication of DVT. DVT is a fairly common disease, particularly in older age and it is associated with reduced survival, substantial health care costs and higher rate of recurrence.

DVT closely resembles with *Siraj Vata* or *Siraj Granthi* according to *Ayurved*. In *Siraj Granthi*; *Vata* and *Rakta Dushti* occurs along with narrowing of viens i.e. *Sira*. Due to trauma to the left leg, vitiation of *Vata* results which further causes vitiation of *Rakta* as a consequence. *Vagbhat* had explained the “*Aashrayashri Sambandha*” between *Rakta* and *Pitta*. So *Vata-Pittaghna Chikitsa* along with *Rakta Prasadak Chikitsa* was planned to treat this patient.

CASE REPORT

A 45 years male brought by his wife to GACH, Nagpur during January 2017 with complaints of pitting oedema on left leg since from 1 ½ months, severe pain in left leg, blackish discolouration on left leg since from 1 month, itching throughout the body, furuncles were present on upper 1/3rd of left hand since from 10 days & difficulty in walking. An ulcer was manifested on left leg since 8 days (5 cm above the ankle joint) along with discharge of pus.

PAST HISTORY

Patient gave negative history of diabetes mellitus, Hypertension, Asthma, Tuberculosis, Convulsions, any medical or surgical procedure, blood transfusion or brain Injury.

He had history of Accident (fall) before 3 years with Abrasion on left lower knee joint. He had addiction of Tobacco chewing since 15 years with occupational history of photographer due to which he has to stand for longer duration.

Then he developed chronic thrombus with partial recanalization in left external iliac vein, sapheno- femoral junction and superficial femoral vein. For which he got treatment from few modern physicians for last one and a half years but instead relief from his problems the condition was worsening so he to our hospital for the treatment.

EXAMINATION ON ADMISSION

GENERAL EXAMINATION

His General condition was moderate, patient was afebrile, his pulse was 82/min, blood pressure was 140/80mm of hg, with no icterus or pallor and body weight 83kg.

PHYSICAL EXAMINATION

Ulceration and blackish discolouration was present in left lower limb along with prominence of veins.

SYSTEMIC EXAMINATION

The systemic examinations revealed that respiratory, cardiovascular and central nervous system were within the normal limits. Abdomen was soft and non-tender with presence of normal bowel sound.

ASTHAVIDA PARIKSHANA

1. Nadi-82/min (*Mandukgati*); 2. Mala-Malavashtambha; 3. Mutra-Samyak; 4. Jivha-Sama; 5. Drik-Spashta; 6. Sparsh-Samashitoshana; 7. Shabda-Spashta; 8. Akrti-Madhyam.

INVESTIGATION

Dated: 05/01/2017

Hb-16.5%, TLC-9300/cumm, DLC- P-69%, L-23%, E+M- 8%, ESR- 13%, Platelet Count - 3.20lacs/cumm PT-20Sec, PTTK- 33.0 Sec, B.T.- 1.15 Sec, C.T.- 3.30Sec.

BSL R- 115mg/dl, BSL Fasting – 90mg/dl, PP-140mg/dl.

Urine routine and microscopic nil, Renal function test within normal limit.

HIV test – negative.

Liver function test and Lipid profile was normal except Gamma Glutamyl Transferase 64.4 U/I with total cholesterol is 219 (06/01/2017).

Venous Doppler of left lower limb study reveals partial occluding echogenic chronic thrombus in left SFJ (sapheno-femoral junction). Rest deep vein appears normal (25/01/2016)
 Venous Doppler of Left lower limb reveals chronic thrombus with partial recanalization seen involving visualized part of external iliac vein, sapheno-femoral junction and superficial femoral vein (29/12/2016).

MANAGEMENT

Initially treatment was started with *Raktapachak kwath* 40ml bd and antihypertensive Tab Telma 40mg at morning was given to control raised blood pressure. 2nd day patient was complaining of severe pain in left leg and unable to walk properly. Hence *Jalaukavacharan* was planned. Two *Jalauka* were applied on left leg on 2nd day of hospitalization and pain reduced instantly. Due to drastic reduction in pain; *Jalaukavacharan* was repeated again after two days.

After first setting of *Jalaukavacharan Kutaki Churna* 5gm bd, *Gogruta* 1tsf bd, *Lashun Kalk* 5gm bd were given as a *Dipan-Pachan* and *Bhedan* before *Snehapan* for 3 days. From 11/1/2017 *Mahamjishthadi Kwath Siddh Snehapan* was given in following manner.

Table: 1: Table Showing Day wise Doses of *Snehapan* Given to Patient

Day	Date	Dose
1 st	11 / 01 / 2017	8 TSF (40 ml)
2 nd	12 / 01 / 2017	16TSF (80 ml)
3 nd	13 / 01 / 2017	24TSF (120 ml)
4 th	14 / 01 / 2017	30TSF (150 ml)
5 th	15 / 01 / 2017	36TSF (180 ml)
6 th	16 / 01 / 2017	42TSF (210 ml)
7 th	17 / 01 / 2017	48TSF (240 ml)

Two days prior to *Virechan*, *Sarvanga Abhyang* with *Til Tail* and *Nadiswedan* with *Nirgundi* and *Dashamul sidha kwath* was given. On 20/1/2017 *Virechan* was administered by *Kalyanak Guda* 50gm and *Nishottar Churna* 10gm at 9am after *Sarvang Abhyang* and *Svedan*.

Totally 22 *Virechana Vega* were noted. *Pravar* type of *Shudhi* was found in this case. Throughout the day all vitals of the patient were within normal limits. As *Shudhi* was *Pravar* for that seven days of *Sansarjankram* was advised (21/1/17 to 27/1/17) as per *Ayurvedic* texts.

RESULTS

Following observations and results were noted after completion of *Virechana*.

Table 2: Table Showing Effect of Treatment on Girths of Various Areas of Left Leg

Girths of left leg	4/1/17	7/1/17	9/1/17	11/1/17	17/1/17	21/1/17	28/1/17
At knee	41	39	39	38	38	38	38
5 cm above knee	45	44	43	43	43	39	39
5 cm below knee	36	35	36	36	36	36	36
10 cm above knee	48	46	46	45	45	44	44
10 cm below knee	40	40	37	39	39	37	37
At ankle	26	24	24	24	23	22	22
5 cm above ankle	23	22	22	21	21	20	20
10 cm above ankle	28	26	26	26	26	25	25

Table 3: Table Showing Effect of Treatment on BMI

Parameter	Before Snehapana	After Snehapana	After Virechana
BMI	28.71	27.68	26.98

Table 4: Table Showing Effect of Treatment on Venous Doppler of Left Leg

Affected Veins	BT	AT
Ext-iliac vein	Chronic thrombus with partial recanalization	Complete obliteration
Sapheno-femoral junction	Chronic thrombus with partial recanalization	Incompetent with reversal of flow
Common femoral vein	Chronic thrombus with partial recanalization	Complete recanalization
Upper and mid Superficial femoral vein	Chronic thrombus	Minimal recanalization
Distal Superficial femoral vein	Chronic thrombus with partial recanalization	Normal in calibre with thickened wall

Table 5: Table Showing Effect of Treatment on VAS/WOMAC scale per 100 meter

Parameters	4/1/2017	7/1/2017	10/1/2017	17/1/2017	21/1/2017
VAS Scale	10	8	7	4	1
WOMAC Scale	86%	80%	60%	40%	24%
Time required for 100 meters	15 minutes	14 minutes	10 minutes	5 minutes	3 minutes

Table 6: Table Showing Effect of Treatment in Gait

Date	Gait
4/1/2017	Difficult and painful walking with support
10/1/2017	Difficult and painful walking without support
17/1/2017	Slight Difficult and painful walking without support
21/1/2017	Normal walking without pain



Before Jalaukavacharan Date 4/1/2017

After Jalaukavacharan date 08/1/2017

Figure 1



Before Snehapana (10/01/2017)

After Snehapana (18/01/2017)

Figure- 2



Date 4/1/2017

Date 15/1/2017

Figure no 3: Effect of Ayurvedic Treatment on Girth of Left Leg



Before Virechana (16/1/2017)

After Virechana (23/1/2017)

Figure- 4

DISCUSSION

Blood clot (thrombus) within a deep vein is a cardinal sign of DVT. In Ayurveda DVT may be co-related with *Siraj Granthi* or *Siraj Vata*. *Vatadushti* and *Raktadushti* are vitally found in the manifestation of *Siraj Granthi*. *Charak* had depicted *Virechana*, *Upavasa* and *Raktastravan* as the management tool in *Rakta Dushtijanya Vikar*. He further quoted that *Sira* is the *Upadhatu of Rakta*. *Rakta* and *Pitta* are having *Aashrayashri Sambandha*. *Virechana* and *Jalaukavacharan* are the choice of treatment for *Pitta- Rakta Dushtijanya Vyadhi*. These *Shodhan Karma* not only cures the diseases but also helps in restricting its progression and recurrences.

Considering above factors i.e. vitiation of *Vata*, *Rakta* & *Sira* in this patient we planned for *Jalaukavacharan* and *Virechana*.

Considering *Rakta Dushti* as *Pradhan* culprit alongwith narrowing of *Sira Raktapachak Kwath* might have been worked as *Pachan* and *Deepan* in this case. *Kutaki Churna* was used for *Pitta-Kapha Shodhan* and *Malabhedana Chikitsa*. *Gogruta* was used in *Samankale* for *Dipan* and lowering dryness of body. *Lasunkalka* was administered on the bases of *Agnidipan*, *Vata-Kaphagna* property, *Meda-Kapha Shodhan* from blood and decrease blood pressure as he was freshly diagnosed hypertensive.

Mahamanjishthadi Kwath Sidha Gruta was used as a *Snehapan* for *Shodhan Chikitsa* for considering *Twakvaivarnya* with *Vata-Raktadushti*. For *Virachana* "*Kalyanakguda*" in

which *Nishottar* is a main ingredient along with *Nishottar Churna* were used. *Nishottar* is having *Pitta-Kaphagna* property but if used with other drug its *Tridoshagna*.

CONCLUSION

Jalaukawacharana is a best *Panchakarma* for *Rakta* and *Pitta Dosh Pradhan Vyadhi* when *Dosha* are locally (Sthanic) placed. *Virechana Chikitsa* in *Ayurveda* forms an important concept of treating various *Piitaj* disorders. Deep vein thrombosis (DVT) is the formation of a blood clot within a deep vein. The management given in this case gave enthusiastic outcome however trials in huge number of patients may give better analysis along with its role on recurrence of DVT cases.

REFERANCES

1. Davidson's Principles and Practice of Medicine, edited by Nicholas A. Boon, Nicki R. College and Brain R. Wallker, published by Churchill living stone Elsevier, 22th edition 2014.
2. K. George Mathew & Pravin Aggarwal, Text book of Medicine 2015 published by Elsevier-Saunders, Mosby, Churchill.
3. www.ncbi.nlm.nih.gov/Epidemiology of venous thromboembolism / John A. Heit-2015-cited by 76.
4. www.ncbi.nlm.nih.gov/A retrospective registry of Indian patients with venous thromboembolism / Dhanesh R. Kamerkar-2016-cited by 1 / Indian journal of Critical Care Medicine.
5. <https://en.m.wikipedia.org> Deep Vein Thrombosis-Wikipedia.
6. Vagbhat, "SarthaVagbhata"; Ashtanga Hridaya with Marathi translation Edited by Gharde G. K.; 1996, Published by Raghuvanshi Prakashan, Pune.
7. Vidyadhar Shukla, Charaksamhita of Agnivesha elaborated by Charaka edited by Vaidyamanorama 2004, Published by Chaukhambha Sanskrit Pratishthan, Varanasi. Volume 1/Sutrasthana / Adhyay 15 /Shlok 16 / 245.
8. Vidyadhar Shukla, Charaksamhita of Agnivesha elaborated by Charaka edited by Vaidyamanorama 2004, Published by Chaukhambha Sanskrit Pratishthan, Varanasi. Volume 1/Sutrasthana / Adhyay 24 /Shlok 18 / 323.
9. Vidyadhar Shukla, Charaksamhita of Agnivesha elaborated by Charaka edited by Vaidyamanorama 2004, Published by Chaukhambha Sanskrit Pratishthan, Varanasi. Volume 2/Kalpasthana / Adhyay 7 /Shlok 40-45 / 836.

10. Vidyadhar Shukla, Charaksamhita of Agnivesha elaborated by Charaka edited by Vaidyamanorama 2004, Published by Chaukhambha Sanskrit Pratishthan, Varanasi. Volume 2/Kalpasthan / Adhyay 7 /Shlok 4-6 / 832.
11. Vidyadhar Shukla, Charaksamhita of Agnivesha elaborated by Charaka edited by Vaidyamanorama 2004, Published by Chaukhambha Sanskrit Pratishthan, Varanasi. Volume 2/ Chikitsasthan / Adhyay 15 /Shlok 16-17 / 361.
12. Priyavat Sharma Sushrutsamhita of Sushruta edited by Anantaram Sharma, 2010 Published by Chaukhambha Sanskrit Sansthan, Varanasi. Volume 1/ Nidansasthan / Adhyay 11 /Shlok 8-9 / 540.
13. Priyavat Sharma Sushrutsamhita of Sushruta edited by Anantaram Sharma, 2010 Published by Chaukhambha Sanskrit Sansthan, Delhi. Volume 1/ Sutrasasthan / Adhyay 13 /Shlok 6 / 94.
14. Shadangadhar Samhita/Bramhanad Tripathi /chaukhamba prakashan /madhyam khanda.
15. Vagbhat, Ashtanga Hridaya with Marathi translation Edited Bramhananda Tripathi; 2009, Published by Chaukhambha Sanskrit Sansthan, Delhi. Sutrasasthan / Adhyay 11 /Shlok 27/ 165.
16. Vagbhat, Ashtanga Hridaya with Marathi translation Edited Bramhananda Tripathi; 2009, Published by Chaukhambha Sanskrit Sansthan, Delhi. Sutrasasthan / Adhyay 29 /Shlok 10-11/1100.
17. A.P. Deshpande Dravyagunvidhyan published by Anamol prakashan, Pune.2008 volume 2.