

Ayurvedic Management of Nayanabhighatjanya Timir W.S.R to Traumatic Macular Hole - A Single Case Study

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1. Introduction

Traumatic macular hole (TMH) is a full-thickness defect of neuro-retina within the fovea, after a mechanical ocular blunt injury. [4] It is the second most common cause of macular hole and may lead to it may sometimes lead to permanent significant vision loss, due to being usually associated with other retinal pathologies, including commotio retinae, diffuse retinal edema, retinal hemorrhage, vitreous hemorrhage, choroidal rupture, photoreceptor and RPE damage, and retinal tears and dialysis. [5] Vitrectomy and Fluid-Gas Exchange is a current management for the repair of TMH. Spontaneous closure occurs in approximately 50% of cases, but rarely after the age of thirty. [6]

Nayanabhighat is trauma to the eye due to external factors causing internal doshas to get vitiated and exhibit respective dosha related symptoms. *Timir* is related to loss of visual acuity or loss of light vision. Common causes of any ocular disease does include abhighat as one significant reason behind loss of vision. Early intervention can prevent the subject from getting totally blind.

So we planned Ayurvedic management by correlating complaints of the subject with Nayanabhighat & *Timir* since there is history of trauma and loss of visual acuity. Its type 4 of TMH presentations, localized detachment of the neurosensory retina at the margin without cystic edema. [7]

2. Methodology

2.1 Case Presentation

42 year old male subject, history of impact blunt trauma injury on right eye (supra ocular region) on 7th December 2021. He consulted M.D. (Ophthal) immediately. The subject had blurred & distorted vision (CF 1.5mtrs) post injury. He was started with Tb. Omnacortil 40mg > 20mg > 0 each 5 days, Brimocom eye drops BD, Predforte eye drops 6>5>4>3>2>1 initially and Lacryl Hydrate Eye Drops TDS * 30 days on further follow-up with doubtful prognosis.

The subject had previous skin allergy on the nasal region. After trauma, he had no visible changes on external skin.

Getting no proper resolution, the subject visited the mother institute for further Ayurvedic therapeutic management on 29th January 2022 for the same. Then he had distorted vision, CF 1.2mtrs. The subject works as an electrician and this was a work related injury.

Assessments: Subjective symptoms, Visual acuity, Fundus Photography, Optical Coherence Test (OCT)

Therapeutic intervention:

Table 1: Ayurvedic therapeutic interventions palliative treatment

ORAL MEDICINE				
MEDICINE	DOSAGE	ANUPAN	TIME	DURATION
Cp. Palsineuron (Proprietary) AF	1 BD	Warm Water	9am - 9pm	29/01/22 - 01/03/22
Tb. Gandharv Haritaki (500mg) HS	2 OD		9.30pm	29/01/22 - 29/03/22
Tb. Kaishor Guggul (250mg) AF	2 BD		9am - 9pm	29/01/22 – further
Mahatiktak Ghrut (20ml) HS	1 OD		10pm	29/01/22 – further
Tb. Arogyavardhini Rasa (500mg) BF	1 BD		9am - 9pm	29/01/22 – further
Mahamanjishthadi kashay (30ml) AF	1 BD	WW equal quantity	9am - 9pm	29/01/22 – further
Nimb-Haridradi Yog (2gm) (Early morning Empty Stomach)	1 OD	Ghee	7am	29/01/22 – further

Table 2: Ayurvedic Therapeutic interventions (*Shodhan Chikitsa*)

EXTERNAL THERAPIES			
TREATMENT	MEDICINE	Method of Administration	DURATION
<i>Abhyantar Sneha Pan</i>	<i>Mahatiktak Ghrut</i>	10ml HS	29/01/2022 - 05/04/2022
<i>Nasya</i>	<i>Jeevantyadi Ghrut</i>	8*-8*	29/01/2022 - continued till date and further
<i>Tarpan</i>	<i>Jeevantyadi Ghrut [8]</i>		29/01/2022 - 08/03/2022 & 19/03/2022 - 08/04/2022
<i>Netra pichu</i>	<i>Jeevantyadi Ghrut</i>		09/03/2022 - 18/03/2022 & 09/04/2022 till further
<i>Vidhakarman (26G needle)</i>	<i>Apang - Lalat - Upanasika – Bhrumadhya</i>		29/01/2022 - 09/04/2022 alternate days
<i>Vidhakarman (Toothpick)</i>	<i>Apang - Lalat - Upanasika – Bhrumadhya</i>		10/04/2022 till further
<i>Virechan</i>	D1 - D4 <i>Mahatiktak Ghrut</i> 60ml - 150ml D5 - D6 <i>Sarvang Snehan Swedan</i> D7 <i>Virechan</i> by <i>Abhayadi Modak</i> 500mg <i>sansarjan kram</i> of 15 <i>annakaal</i>		08/03/2022 - 19/03/2022
<i>Jalaukavacharan</i>	<i>Apang - Lalat – Upanasika</i>	2 sessions 1 week apart	22/03/2022 29/03/2022

3. Result

1) Subjective symptoms

Table 3: Subjective symptoms

Symptoms [9]	B T	A T
<i>Samrambha</i> (Slight inflammation)	+	-
<i>Raga</i> (Redness)	+	+
<i>Tumula</i> (Constriction)	+	-
<i>Ruja</i> (Pain)	-	-

2) Visual acuity, Fundus Photography, Optical Coherence Test (OCT)

Table 4: Objective symptoms

Date		11.12.2022 Figure 1	29.01.2022 Figure 2	06.04.2022 Figure 3
Local Examination	Vn RE	CF (1.5mt)	4 CF (1.2mt)	6/24 (P)
	Vn(PH) RE	NIF	NIF	6/36(P)
	<N	48	36	36
Anterior Segment	Conjunctiva	Bulbar congestion	Mild bulbar congestion	No congestion
	Sclera	Bulbar congestion	Mild bulbar congestion	No congestion
	Pupil	RAPD ?	RAPD	RRR
	Lens	Clear	Clear	Clear
Posterior Segment	Vitreous	Vitreous Haemorrhage	Dispersed vitreous haemorrhage inferiorly	No Haemorrhage
	Optic Disc	--	Mild temporal pallor	Clear
	Retina	--	Pre retinal haemorrhage, attached retina	No Haemorrhage
IOP (Schiotz Tonometer)	RE mm hg	20	15	14.6
	LE mm hg	18	13	12.2
Macula (RE)		Retinal pallor	Foveal Thickening, RPE alteration at macula	No foveal thickening, Normal retinal glow
Background		RE TMH	RE TMH (sealed)	RE TMH (sealed)

The subject still continues with oral medications as prescribed and will continue to do so for another 3 months with regular monthly follow up for visual acuity.

4. Discussion

a) **Disease:** This patient's signs and symptoms were explored in Samhita's on the basis of *Nayanabhighata* as a causative factor and associated Drushtinash along the lines of *Timir* according to Ayurveda. *Timir* as an entity unto itself was described by Sushrut and Vagbhat. When Doshas afflict the second and third Patala (layer) of the eye there is a gross deterioration of vision and the hallmark symptom of *Timir*.

Probable pathology

This is a mechanical injury caused to the eye due to hitting of nail on supraocular region and intra vitreal bleeding. Also in the samanya samprapti of Netrarogas importance is given to the siradushti by vitiation of doshas and abhigata represents the localized vataprakopa. This represents localized vaat, pitta prakop and rakta dushti. This thus exhibits symptoms of abhigat janyatimir and Siragata Vata. The impact was so severe that it lead to increased intra ocular pressure causing TMH. There is edema seen on the macular level which later on resolves post treatment.

b) Treatment Protocol Followed:

Shaman/ palliative intervention

Table 5: Probable mode of action of palliative treatment

Medicine	Mode of Action (Gross)
Cp. Palsineuron	Nerve tonic, in traumatic conditions
Tb. Gandharv Haritaki	Regulation of normal function of vaat
Tb. Kaishor Guggul [10]	In vaat rakta dushti
Mahatiktak Ghrut [11]	In Vaat – pitta – rakta dushti
Tb. Arogyavardhini Rasa [12]	Tridoshaghna, regulates secretions of alochak pitta
Mahamanjishthadi kashay [13]	In vaat – rakta dushti
Nimb-Haridradi Yog	Bhrajak pitta detoxifier

Shodhan

Table 6: Shodhan chikitsa probable mode of action

Treatment	Medicine	Probable mode of action
Abhyantar Snehan (Consumption of medicated clarified butter)	Mahatiktak Ghrut	Tikta (astringent) Rasa helps in restoration of normalcy of pitta.
Nasya (Trans Nasal administration of medication)	Jeevanti Ghrut	Prepared from Jivanti Yashtimadhu, Amalaki, Bhibhitak and Haritaki, is indicated in all eye diseases for Nasya and Tarpana due to Tridoshashamaka and chakshushya properties
Tarpan (Trans Ocular administration of medicated clarified butter infiltration)	Jeevanti Ghrut	
Netra pichu (Ophthalmic gauze dipped in medicated clarified butter)	Jeevanti Ghrut	
Viddhakarma (26G needle)	Apang - Lalat - Upanasika – Bhrumadhya	Vataghna karma
Viddhakarma (Toothpick) (At home)	Apang - Lalat - Upanasika – Bhrumadhya	
Virechan (Purgation)	D1 - D4 Mahatiktak Ghrut 60ml - 150ml D5 - D6 Sarvang Snehan Swedan D7 Virechan by Abhayadi Modak 500mg sansarjan kram of 15 annakaal	Helps in overall detoxification by expulsion of impure pitta from micro channels.
Jalaukavacharan (Blood letting)	Apang - Lalat – Upanasika	Improves local blood circulation by it is peristalsis movement.

Snehan, Raktastavan, Virechan, Nasya, Anjan, Shirobasti, Bastikriya, NetraTarpan, Netralepa, Netrasechan, Aaschotan are used for Timir management. [14]

We can here see this treatment protocol also is on similar lines of siragat vaat treatment mentioned in the texts. Since there is history of trauma, there is increase of vaat dosha locally in the seat of pitta causing vitiation of alochak pitta. Plus there is evidence of bleeding hence we'll consider vitiation of rakta dhatu & pitta dosha also. Hence to overcome this entire pathogenesis we administered Virechan (Purgation) treatment.

On gross treatment was thought taking below mentioned points into consideration.

As per Sushrutacharya, while treating the diseases due to increase in Vaat in Chakshurendriya, do snehan, abhyang, upanaha, mardan, aalepa, other treatments that will reduce the aggravated vata. [15] Also when there is increase of vaat in twacha, mamsa, rakta and sira do raktamokshan. [16] In Snayu, Sandhi, Asthigat vaat vitiation, treat by using snehan, upanaha, agnikarma, bandhan, mardan [17] Virechan removes the obstruction and gives strength to the indriya [18], it is also advisable to do it in case of Timir and netrarog. [19]

The improvement of the vision of this patient indicated that the Doshas were being expelled from the second and third Patala.

c) Further plan of action: Anjan (collyrium), Shirobasti (retention of oil over the head), Bastikriya (Madhutailik basti/ chakshushya basti), Netralepa (application of paste),

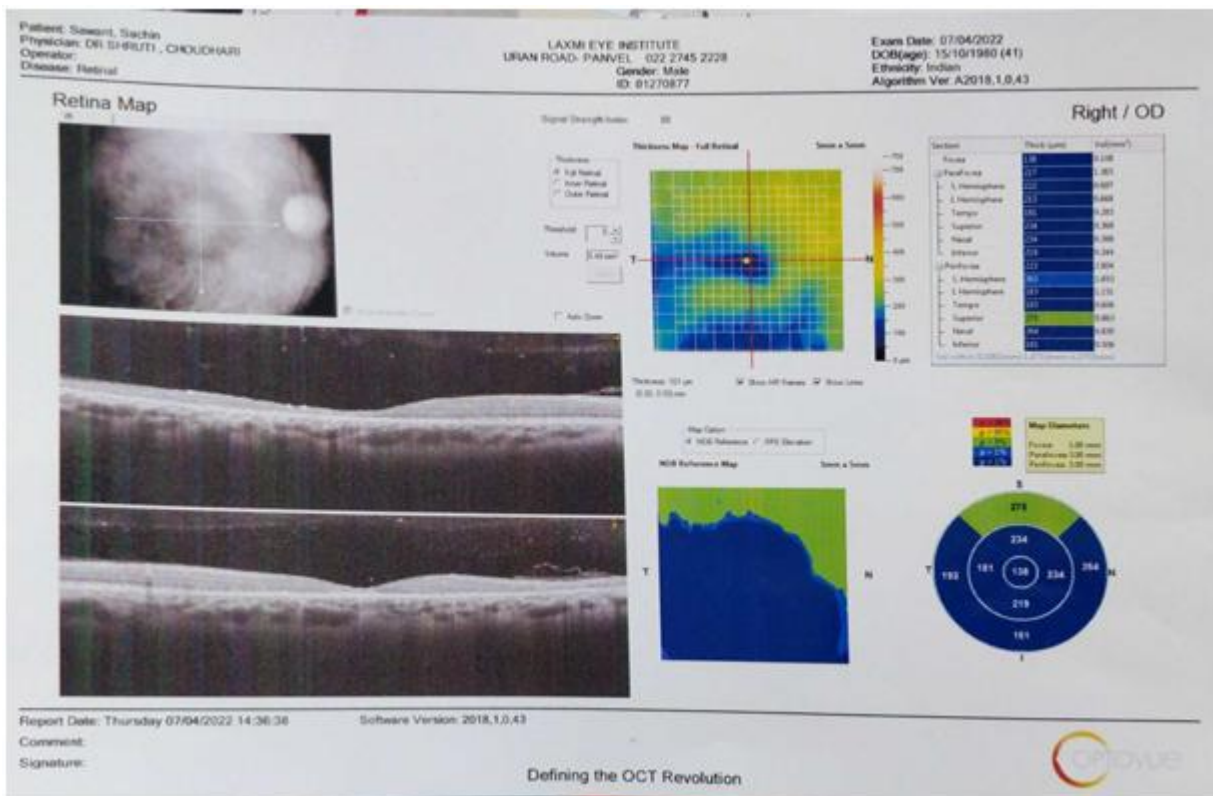
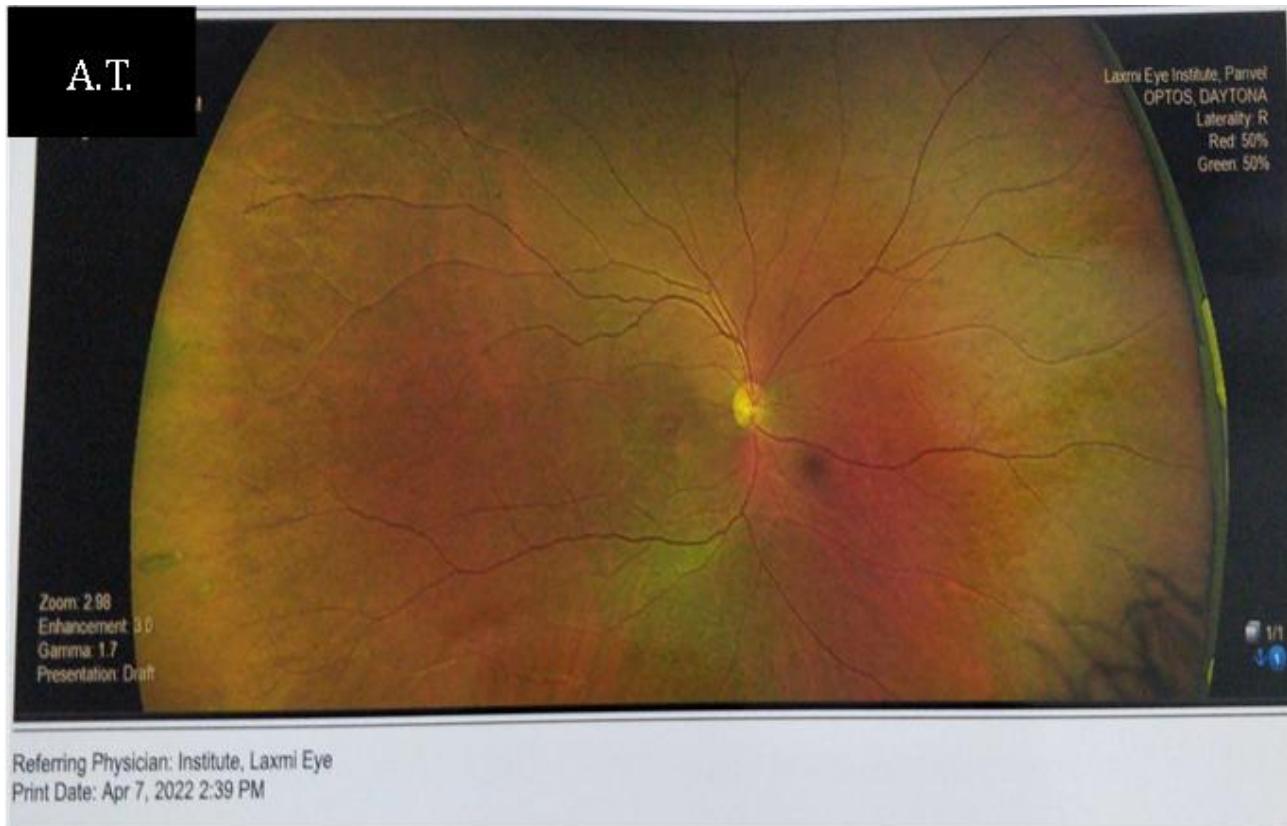


Figure 3: OCT scan 07/04/2022





Conflict of interest: Nil

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