

EFFECT OF TRIPHALA GHRITA NETRATARPANA IN DIABETIC RETINOPATHY

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ABSTRACT

Diabetic retinopathy is a condition in which prime involvement is of blood vessels. *Netratarpana* is localized treatment procedure for inner pathological changes in eye disease, it is a noninvasive and very effective measure compare to other treatment procedures available in other *pathies*. Therefore effort for reassessment of *Netratarpana* has been done to understand the efficacy of *Triphalaghrita* in diabetic retinopathy.

Keywords: *Netra, Netratarpana, Diabetes, Retinopathy.*

INTRODUCTION

Diabetic eye diseases caused by diabetes which is a leading cause of blindness and vision loss. Among the diabetic eye diseases diabetic Retinopathy has major contribution for vision loss.¹ According to WHO all people with diabetes age above 30 years should undergo eye checkup periodically.² The retinal damage probably originates from a state of hypoxia which results in an increased permeability of the capillaries, the formation of multiple micro aneurysms and local degenerative changes leads to the development of oedema, simultaneously the closure of areas of retinal capillary bed leading to retinal hypoxia and the subsequent risk of neovascularisation.³

Retina is the layer of tissue at the back of the inner eye and having dedicated blood vessels which nourishes the retinal tissue. Diabetes weakens those blood ves-

sels further breakdown, leak and become blocked affecting and impairing vision.⁴

Modern medicine has sophisticated therapeutic agents and procedures but in patient do not show much improvement, therefore patient have to suffer with impaired vision. More over modern drugs or procedures cannot be used repeatedly as well as prolonged use may leave toxic effect on the tissue. Procedures like photo coagulation may damage underline tissue permanently.⁵ eventually the patients are looking at the alternative medicines which will sub serve the demands. With this view there is a need to find a safer drug and procedure to control the diabetic retinopathy.⁶ Ayurvedic texts, classics provide wide references on herbal and herbomineral preparations which can be safely used initially as well as externally for longer period.

Triphalaghrita is the *Rasayan* remedy contains *Triphala* and *Ghrita*.⁷ It is revitalizing in action and the drug *Triphala* is *VatakaphaShamaka* and *Ghrita* is *Pitta Shamaka*, together acts as *Tridosha Shamaka*. *Ghrita* is poly unsaturated fat and lipid soluble hence rapidly absorbed across the tissue, easily synthesized and arrest the pathological changes of the retinal tissue.⁸

MATERIALS & METHODS

Patients were randomly selected and grouped in trial and control group.

Trial group – 30, Control group – 30

1) Selection criteria :

1. Age above 30 yrs and up to 60 yrs of either sex.
2. Diabetes more than 5 yrs.
3. Diabetes type – II
4. Blood sugar – Fasting 80 mg/dl and post meal 120 mg/dl.
5. Non proliferative diabetic retinopathy.
6. Patients with following symptoms and signs.

Symptoms:

- a. Cannot see in dim light and blind spots.
- b. Double vision.
- c. Blur vision.
- d. Spots floating
- e. Impaired field of vision.

Signs:

- a. Cotton – wool spots.
- b. Hard exudates
- c. Microaneurysms.
- d. Hemorrhage
- e. Macular oedema.

2) Exclusion criteria ;

1. Age below 30 yrs, and above 60 yrs.
2. Diabetes less than 5 yrs.
3. Diabetes type – I
4. Bl.Sugar – fasting more than 100 mg/dl and post meal more than 140 mg/dl.

5. Presence of neovascularisation.
6. Patients of tuberculosis, venereal diseases, multiple sclerosis.
7. Patients of HIV positive.

Sample size: Total 60 Patients were included in this trial, 30 Patients in each group.

Drug: *Triphalaghrita* for local and Systemic use.

Drug dose:

- 1) For *Netra Tarpana*-20ml; Duration – 20 minutes
- 2) Internally – 20 ml. Once before meal.

D Duration of study: 6 Months

Trial group, control group: 7 day *Netratarpana* with a follow up for every 15 days upto 2 months and follow up after 6 months.

Method of confirmation: Fundoscopy.

OBSERVATION: There is marked reduction in symptoms after the 4th follow up in trial group patients compare to control group. At the end of 6 months the patients of trial group shows significant improvement in the visual acuity. (P<0.001)

DISCUSSION

Retinopathy developed owing to diabetes is a localized condition in which prime involvement is of blood vessels. Retina has plenty of blood vessels which confines nutrients to the retinal layer. The retinal changes originates from a state of anoxia which results in an increased permanently of the capillaries, the formation of multiple micro aneurysms and local degenerative changes in the tissue. This micro circulatory change leads to the development of retinal oedema simultaneously the closure of areas of retinal capillary bed leading to retinal hypoxia.

These changes can be compared with *Sira*, *Srotas*, nutrition of *Dhatu* and

AdhistanVikrutii.eDrushti. Sira are developed from *Medadhātu* and considered as *Srotas* which carry nutrients (*Poshaka Dhātu*) and nourish the retinal tissue. In diabetes there is *Tridosha Vikruti* along with *Medha* and *Manasadhatu* further involves *Majja Dhātu* also. Due to obstructive pathology there is no supply of nutrients to the proximal tissue. Considering those localized changes local treatment is necessary therefore *Netratarpana* plays a vital role in the eye diseases specially the diseases confined to inner structure of the eye.

Triphalaghrita helps in preservation of tissue and promotes the regeneration of tissue and prevents further degenerative changes of the retinal tissue. Because the assessment shows that the p value ($P < 0.001$) of trial group is more significant than control group.

CONCLUSION

After careful observation and re-assessment of the study it is observed that *Netratarpana* in the patients of diabetic retinopathy plays a potential role and provides immense information with its therapeutic use in wide range of eye disorders especially in the case of diabetic retinopathy.

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