



ORIGINAL RESEARCH PAPER

Ayurveda

EFFECT OF AYURVEDA ON DIABETIC ULCER: CASE STUDY

KEY WORDS:

Rima Bhattacharyya

MD Scholar, Kayachikitsa Dept., Govt. Ayurvedic College and Hospital, Guwahati

Manasjyoti Bashistha*

MD Scholar, Kayachikitsa Dept., Govt. Ayurvedic College and Hospital, Guwahati*Corresponding Author

INTRODUCTION

Ulcer is one of the common problems of having Diabetes. High blood sugar may affect tiny blood vessels, that supply the nerves in the legs, resulting in burning pain or numbness in the feet, which is called as "Peripheral neuropathy" and also it reduces pain sensation. Diabetic ulcer generally consists of a triad i.e. Peripheral Neuropathy, Ischaemia (decreased blood supply) and Infection. Any type of trauma, puncture, cut, burn even ingrown toe nail can lead to Diabetic foot ulcer. One may not be aware of these minor injuries due to peripheral neuropathy, so ulcers may develop and enlarge before they are noticed.

AIM OF THE STUDY

This study was to establish the Ayurvedic management strategies of Diabetic Foot Ulcer, starting from prevention of re-occurrence to the options for treatment and cure of Ulcers.

MATERIAL AND METHODS

The study was conducted on 8 numbers of Diabetic Ulcer patients in both OPD and IPD of deptt. Of KAYACHIKITSA, Govt. Ayurvedic College and Hospital, Jalukbari, Guwahati.

- Sample size : 8
- Data collection : Daily OPD and IPD basis
- Sex Ratio : M:F = 6:2
- Age Range: 35-60 years

CASE REPORT

CASE 1 : 1. Ulceration over right dorsal aspect of foot for last 1 week.

2. H/O swelling of the right foot 10 days back.
WAGNER CLASSIFICATION [1] : GRADE 1

CASE 2 : 1. Ulceration over the dorsal aspect of left foot and also in between great toe and second toe for last 2 weeks.

2. Presented with a cavity which connects dorsal to planter aspect of the foot.

WAGNER CLASSIFICATION: GRADE 1

CASE 3 : 1. Ulceration over left planter aspect of foot for last 20 days.

2. Tingling sensation of left foot for last 1 month.

WAGNER CLASSIFICATION: GRADE 2

CASE 4 : 1. Swelling and redness over left foot for last 3 months.

2. Developed a cavity with drainage of pus over planter aspect of left foot for last 3 months.

3. Severe burning pain over the foot along with restriction of movement of the foot for last 3 months.

WAGNER CLASSIFICATION: GRADE 1

CASE 5 : 1. Ulceration over left lower leg for last 4 months.

2. H/O of cut injury during working.

WAGNER CLASSIFICATION: GRADE 2B

CASE 6 : 1. Ulceration over little finger of right foot for last 10 days.

2. Blackish discolouration of whole foot for last 15 days.

WAGNER CLASSIFICATION: GRADE 1

CASE 7 : 1. Multiple openings with pus drainage over medial aspect of left leg for last 8 days.

2. Severe pain over left leg for last 8 days.

WAGNER CLASSIFICATION: GRADE 1

CASE 8 : 1. Ulceration over dorsal and planter aspect of right foot near little finger for last 2 months.

2. Numbness over right foot for last 2 months.

WAGNER CLASSIFICATION: GRADE 3

MECHANISM OF LOCALLY APPLIED DRUGS:

ARAGVADH (Cassia fistula Linn.) :

Rasa: Madhur^[2]
Guna: Guru, Mridu, Snigha^[2]
Veerya: Seeta^[2]
Vipak: Madhur^[2]

Gana: Kusthaghna^[4] Aragvadhadigana^[8] Lakshadigana^[6] Kandughna^[7] Vranasodhana^[8]

Affects on local application [2]: Sothaghna and Vedanasthapana

It shows Hypoglycemic activity by presence of Catechin.

It shows antibacterial activity against specially gram negative bacterias and having potent larvicidal activity.^[3]

HARIDRA (Curcuma longa) : The formulation Haridra khanda [9] has been used

Rasa: Tikta, katu^[10]
Guna: Ruksha, Laghu^[10]
Veerya: Ushna.^[10]
Vipak: Katu.^[10]

Gana : Kusthaghna^[11] Vishaghna^[12] Lekhaniya^[13]

- Affect on local application^[10] : Lekhan, Vranaropan, Vranasodhana, Sothahara, Vedanasthapana and Krimighna.

Curcumin is considered to have properties of Glycation and decreased oxidative stress caused by hyperglycemia, also it provides neuroprotective actions.^[14]

MANJISTHA (Rubia cordifolia Linn) : For local use, Mahamanjisthadi kadha^[15] has been used.

Rasa: Tikta, kasay, Madhu^[16]

Guna: Guru, Ruksha,^[16]
 Veerya: Ushna,^[16]
 Vipak: Katu,^[16]

Gana: Priyanvadigana,^[17] Vranaropana,^[18] Sandhaniya,^[18]

Affect on local application,^[16] : Sothahara , Vranaropana , Kusthaghna.

It Provides significant suppression of reactive oxygen species from polymorphonuclear leukocytes and proinflammatory cytokine induced monocytes. It shows neuroprotective affects by increasing Glutathione levels & promotes Epithelization.^[19]

HONEY :

Rasa: Madhur, kasay^[20]
 Guna : Ruksha, Seeta,^[20]
 Veerya : Ushna,^[20]
 Vipak: Madhur^[20]

Affect on local application : Sandhaniya, Lekhana,^[20]

Honey”s antibacterial activity due to presence of hydrogen peroxide , generated by the enzyme that bees add to nectar. It has enzymatic debridement activity and promotes growth of healthy granulation tissue. Also via osmotic action, honey draws out wound”s unnecessary fluid.^[21]

JATYADITALA,^[22]

Rasa: Tikta, kasay Guna: Laghu, Ruksha

Affects on local application: Shodhana, Ropana, Raktaprasadana. It is considered to anti inflammatory, antioxidant, analgesic, anti ulcer, anti microbial and Haemostatic.^[23]

YASAD BHASMA:

It is Seetal, Kasay and Ropak^[24]

Zinc serves as a cofactor in numerous transcription factors and enzyme systems including zinc-dependent matrix metalloproteinases that augment autodebridement and keratinocyte migration during wound repair^[25]

DISCUSSION

The study entitled “Effects of Ayurveda on Diabetic ulcer : Case study” has been done on 8 numbers of patients in the deptt. Of Kayachikitsa, Govt. Ayurvedic College, Guwahati ,with the aim to establish Ayurvedic Management of Diabetic foot ulcer.

During the course of treatment, we have observed the good prognosis of wounds. The size of the wounds decrease with appearance of healthy granulation tissue and condition of foot (swelling, blackish discolouration, numbness) also improved. No side effects has been noticed during treatment period.

CONCLUSION

Diabetic ulcers are most commonly caused by poor circulation, hyperglycemia and nerve damage . Diabetic foot can be prevented with good glycemic control, regular foot assessment, appropriate foot wear, patient education and early management of pre-ulcerative lesion.

ATTACHMENTS



CASE 1



CASE 2



CASE 3



CASE 4



CASE 5



CASE 6



CASE 7



CASE 8

REFERENCES

- [1] Wagner-Meggitt classification
- [2] Sharma Priyavrat Dravyaguna Vijnana Reprint 2013 part 2 Dwitiya adyaya Kusthaghna varga page no 170 Chaukhambha books
- [3] International journal of Ayurvedic Medicine ISSN:0976-5921
- [4] Shastri Rajeshwardutta Edited Charak Samhita of Agnivesh Reprinted 2015 Sutra sthan 4th chapter Shadvirechansataashriya 13th sloka page no 91 Chaukhambha Bharati Academy
- [5] Shastri Ambikadutta Sushruta samhita with Ayurveda Tattva Sandipika Reprint Edition 2015 Sutra sthan 38th chapter Dravyasangrahaneya 6th sloka page no 183 Chaukhambha Publications
- [6] Shastri Ambikadutta Sushruta samhita with Ayurveda Tattva Sandipika commentary Reprint Edition 2015 Sutra sthan 38th chapter Dravyasangrahaneya 64th sloka page no 188 Chaukhambha Publications
- [7] Shastri Rajeshwardutta Edited Charak Samhita of Agnivesh Reprinted 2015 Sutra sthan 4th chapter Shadvirechansataashriya 14th sloka page no 92 Chaukhambha Bharati Academy
- [8] Shastri Ambikadutta Sushruta samhita with Ayurveda Tattva Sandipika commentary Reprint Edition 2015 Sutra sthan 38th chapter Dravyasangrahaneya 7th sloka page no 183 Chaukhambha Publications
- [9] Shastri Ambikadutta Bhaishajya Ratnavali Vidyotini commentry Revised Eighteen Edition, 2019 11th chapter Krimirogachikitsa prakaranam 56th-63th sloka page no 368-369 Chaukhambha Prakashan
- [10] Sharma Priyavrat Dravyaguna Vijnana Reprint 2013 part 2 Dwitiya adhaya Kusthaghna varga page no 162 Chaukhambha books
- [11] Shastri Rajeshwardutta Edited Charak Samhita of Agnivesh Reprinted 2015 Sutra sthan 4th chapter Shadvirechansataashriya 13th sloka page no 91 Chaukhambha Bharati Academy
- [12] Shastri Rajeshwardutta Edited Charak Samhita of Agnivesh Reprinted 2015 Sutra sthan 4th chapter Shadvirechansataashriya 16th sloka page no 93 Chaukhambha Bharati Academy
- [13] Shastri Rajeshwardutta Edited Charak Samhita of Agnivesh Reprinted 2015 Sutra sthan 4th chapter Shadvirechansataashriya 3rd sloka page no 72 Chaukhambha Bharati Academy
- [14] Tropical Medicine and Surgery, 2015, 3:1, 2329-9088, <http://dx.doi.org>
- [15] Shastri Ambikadutta Bhaishajya Ratnavali Vidyotini commentry Revised Eighteen Edition, 2019 54th chapter Kusthrogachikitsa prakaranam 71st -72nd sloka page no 891 Chaukhambha Prakashan
- [16] Sharma Priyavrat Dravyaguna Vijnana Reprint 2013 part 2 Navam adhaya Raktaprasadana varga page no 800 Chaukhambha books
- [17] Shastri Ambikadutta Sushruta samhita with Ayurveda Tattva Sandipika commentary Reprint Edition 2015 Sutra sthan 45th chapter Dravadavyavidhi 187th sloka page no 237 Chaukhambha Publications
- [18] Shastri Ambikadutta Sushruta samhita with Ayurveda Tattva Sandipika commentary Reprint Edition 2015 Sutra sthan 38th chapter Dravyasangrahaneya 47th sloka page no 187 Chaukhambha Publications
- [19] International journal of Pharmaceutical Science and Research ISSN:0975-8232
- [20] Shastri Rajeshwardutta Edited Charak Samhita of Agnivesh with Vidyotini commentry Reprinted 2015 Chikitsa sthan 25th chapter Dwivraneya chikitsa 65th sloka page no 707 Chaukhambha Bharati Academy Shastri Ambikadutta Sushruta samhita with Ayurveda Tattva Sandipika commentary Reprint Edition 2015 Sutra sthan 45th chapter Dravadavyavidhi 132th sloka page no 232 Chaukhambha Publications
- [21] Indian Pacific Journal of Tropical Biomedicine, 2011 Apr. 1(2):154-160
- [22] Shastri Ambikadutta Bhaishajya Ratnavali Vidyotini commentry Revised Eighteen Edition, 2019 , 47th chapter Vranasothachikitsa prakaranam 64-68th sloka page no 851 Chaukhambha Prakashan
- [23] European Journal of Pharmaceutical and Medical Research ISSN: 2394-3211, www.ejpmr.com

- [24] Krishna Gopal Granthamala Rasatantrasara evum Siddhaprayogasangraha
19th Edition 2016 part 2 , 1st chapter Kupipakka Rasayan and Bhasma page no
7 Krishna Gopal Ayurveda Bhawan
- [25] Biochemistry Research International volume 2011, article ID 72146