IAMJ

Research Article International Ayurvedic Medical Journal ISSN:2320 5091

A COMPARITIVE STUDY OF *DARVYADI KASHAYA* AND *DARVYADI TAIL UTTAR BASTI* IN *ASRIGDARA*

Mishra Sarita[1] Sinha Mukta[2], Mishra S.P.[3]

[1]Department of Prasuti Tantra Faculty of Ayurveda IMS, BHU, Varanasi, UP, India

[2]Department of Prasuti Tantra, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University,Varanasi, UP, India

[3]Head and Assistant Professor, Department of Medical Biochemistry, Institute of Medical Sciences, Banaras Hindu University,Varanasi.

ABSTRACT

The prevalence of abnormal uterine bleeding in reproductive age group ranger from 9% - 30% *Asrigdara* w.s.r. to dysfunctional uterine bleeding is one of the common cause of abnormal uterine bleeding. It is a debilitating disorder both medically and socially, additionally it is common cause of iron deficiency in developed world and of chronic illness in developing world. Hormonal treatment used to correct heavy bleeding during menses has a lot of side effect. Therefore *Darvyadi Kashya* and *Darvyadi Tail Uttar Basti* was selected for proper treatment of Asrigdara (~DUB) in present research. Selected patients were randomly divided into 3 groups in total 120 patients. Clinical trial was carried out , conclusion has drawn that *Darvyadi Kashaya* and *Darvyadi Tail Uttar Basti* is an effective drug to treat *Asrigdara* w.s.r. DUB.

Keywords - *Ayureda, Asrigdara,* Dysfunctional uterine bleeding, *Darvyadi Kashay, Darvyadi Tail, Uttar Basti.*

INTRODUCTION

Woman's health is point of concern for her family, society and culture because any physical or mental disturbance can disturb her normal menstrual cycle .Most women experiences minor psychological and somatic changes for a few days preceding menstruation and during the cycle. Once the menstruation is over, these menstrual melanoma will disappear leaving behind an anxiety free well beingness in the lady. When she has heavy bleeding during menses then it becomes difficult to her.

Excessive bleeding during menses and/or bleeding in between menses has described as Asrigdara in samhitas. In the female the reproductive system has a great importance and any disease in this system will seriously affect her health and happiness and also it proves to be a great discomfort. Asrigdara is one amongst the extensive range of occurrence. Any abnormality in Rituchakra (menstrual rhythm) leads excessive and irregular uterine bleeding which is known as “Asrigdara” in classical text. Though it is a symptom of various Yonivyapadas and Artavadushti specially Artavaativridhi, Pittaja yonivyapad ,Asrija yonivyapada, Lohitshara yonivyapad, Raktayoni etc. It is one of the commonest gynaecological complaints. It is a Rakta pradoshaja vyadhi due to Pittavrita Apana

Vata causes the vitiation of Rakta Dhatu[1]. As per Modern Medicine conventional treatment with hormones has it's limitations. It is associated with their side effects and is contraindicated in women with diabetes, hypertension and cardiac diseases often occurring around perimenopausal age. Hence there is a need for a herbal drug that can be used for all patients to tide over this temporary phenomenon. In present study the drug (Darvyadi Kashaya) was selected as per reference of Bhav Prakash. Chikitsa Adhyaya 68/18 .

Aims and Objectives: The efficacy of drugs described in classical literature of Indian medicine is based on observation and experimentation also for wider applicability and acceptability of Ayurvedic principals and to explain rationality of Ayurvedic therapeutics, it is essential to carry out clinical trials, present study is carried out according to this principle.

- To evaluate the therapeutic efficacy of selected drug.
- To compare the efficacy between oral group ,Uttar Basti alone and Uttar Basti with oral drug.
- To study the recurrence rate during follow up.

Plan of work: The clinical study was conducted on 120 patients of asrigdara (DUB) on the basis of careful history, clinical examination and supportive investigations. The patients were randomly divided in the three groups of 40 patients each. Group A patients were administered *Darvyadi Kashya* b.i.d. with honey for 3 month continuously, Group B patients were administered *Darvyadi Tail Uttar Basti* (3-5 ml) for 3 days in increasing dose respectively after clearance of menses for three consecutive cycles. In group C patients were administered *Darvyadi Kashya* 20ml b.i.d. with honey for three months along with *Darvyadi Tail Uttar Basti* (3-5ml) in increasing doses for 3 days after clearance of menses for 3 consecutive cycles. Efficacy of the drug was assessed on the basis of changes on following parameters i.e. Duration of bleeding, inter menstrual period and amount of bleeding along with associated symptoms. According to the observation of study it can be said that maximum number of patients included in the study were in age group of 26-30 years and 36-40 years. Incidence of *vata-pitta* and *pitta-kapha prakriti* was more common. In all the three groups, relief in symptoms started occurring at IInd follow ups. Group A was taken as control group because *darvyadi kashya* has been described by *Acharya Bhavprakash* for *Asrigdara*, so *Darvyadi Kashya* was taken as control drug having its proven authenticity by direct textual reference. In *samhitas* it is well explained that the *yoni-vyapadas* are due to vitiation of *vata*[2] and *basti* is best treatment for treating vitiated vata as well as it has been advocated for treatment of *Asrigdara*[3] keeping this concept in mind oil processed with *darvyadi kashaya* and *Kalka* was took as trial drug in groups B and *uttar basti* with *darvyadi kashay* together was given in trial group C to compare the effect of *darvyadi kashya* and *darvyadi tail uttar basti* and to know any additional effect of *uttar basti* when it was given along with *darvyadi kashya*.

Drug Standardization -

Collection of all the eight drugs for Darvyadi Kashaya from the Varanasi local drug market. This material were identified by the experts in Department of Dravyaguna, Faculty of Ayurveda, B.H.U.,Varanasi. Standardisation of Kashaya and oil was done TLC, HPTLC, GCMS and GC Capillary column method in Shraddhya Analytical Services, Khat-

kopar, Mumbai and SDMCRAAS, Laxminarayana Nagar, Kuthpady, Udupi,Karnataka Preparation of study drugs i.e. Darvyadi kashaya and Darvyadi Tail was prepared by standard Ayurvedic method explained in "Sharangdhar Samhita".

Selection of cases: Patient attending to the outpatient department of Prasuti Tantra S.S. Hospital, B.H.U., Varanasi were randomly selected. The cases selected were having complaints of excessive and/or prolonged blood loss during menstruation or short intermenstrual period.

Criteria for inclusion: Married women of reproductive age group, with complaints of excessive bleeding per vagina during menstruation either in amount or in duration or both or short inter menstrual period for 3 consecutive menstrual cycles.

Criteria for Exclusion: Associated with any currently ongoing research study **,** Unmarried , Postmenopausal **,** Recent delivery or abortion**,** Patient using hormonal preprations**,** Patient having any organic pathology eg. Cervical erosion,Cervical or uterine polyp, fibroid uterus, adenomyosis, PID, carcinoma cervix, carcinoma uterus etc**,** Intrauterine device in utero**,** Any systemic diseases eg. Cardiac disease, Thyroid disorders, Hypertension, Kidney diseases, Tuberculosis and STDs etc**,** Any allergy to the drugs**,** Severe anemia, Jaundice and Psychiatric patient.

Table no. 2 showing the parameters which were graded in the study

Symptoms	Criteria	Score
Duration of menstrual Bleeding	Bleeding for 2-3 days (Normal)	1
	4-5 days (Moderately prolonged)	2
	More than 6 days (prolonged)	3
Inter-menstrual Period	15-20 days (Very short)	1
	2 1-25 days (Short)	2
	26-30 days (Normal)	3
Amount of bleeding premenstrual cycle	Complete soakage of 2-3 pad in 24 hours (Average)	1
	Complete soakage of 4-5 pad in 24 hours (Moderately excessive)	2
	Complete soakage of >6 pad in 24 hours (Excessive)	3

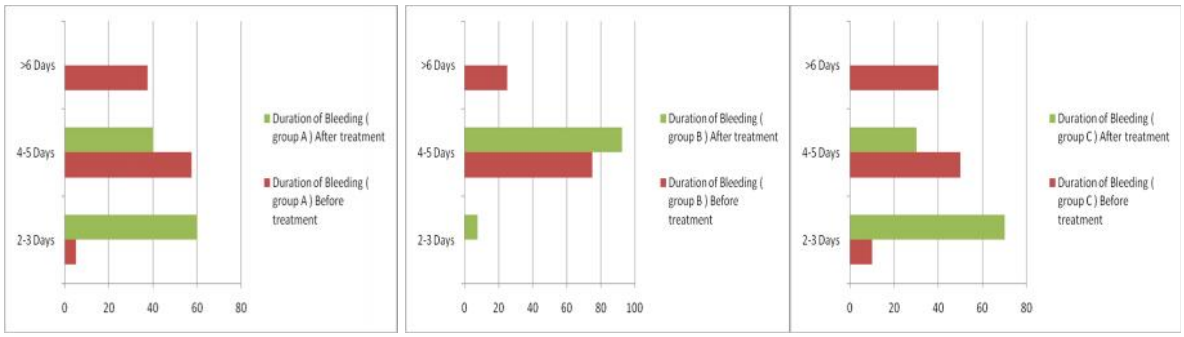
Associated Symptoms - Pain in lower abdomen , Backache , Bodyache, Headache, Pain in calf muscle, Breast tenderness, Giddiness, Fever, Burning in feet & palm , nausea, Vomiting, Loose motion , Anxiety, Weakness, Loss of appetite was noted during each menstrual cycle, grading was done ,score 1 was given for presence of symptom and score 2 was given for absence of symptom.

Statistics adopted

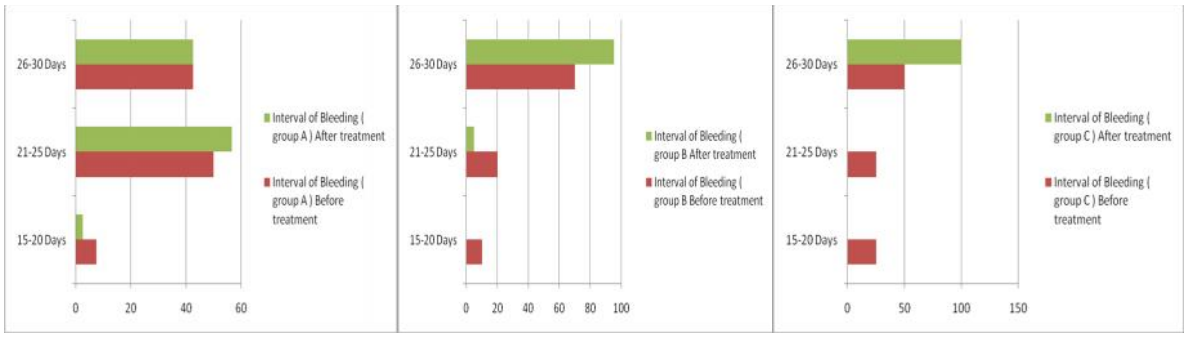
Timely observations were recorded and noted as follows. Result was based on the comparison on improvement in Duration of Bleeding, Inter-menstrual Period and Amount of Blood Loss . After chikitsa relief in all the three main symptoms was scored as cured, relief in two out of three main symptoms was scored as marked improvement, relief in one out of three main symptoms of Asrigdara was scored as improvement and no change in all the three symptom was scored as unchanged. Quantitative data of symptom scores was converted into grades of response. This data was analysed by 'Friedman test' for within the group study and 'Wilcoxon sign test' to study inter group comparison.

Observations : After the study it was observed that

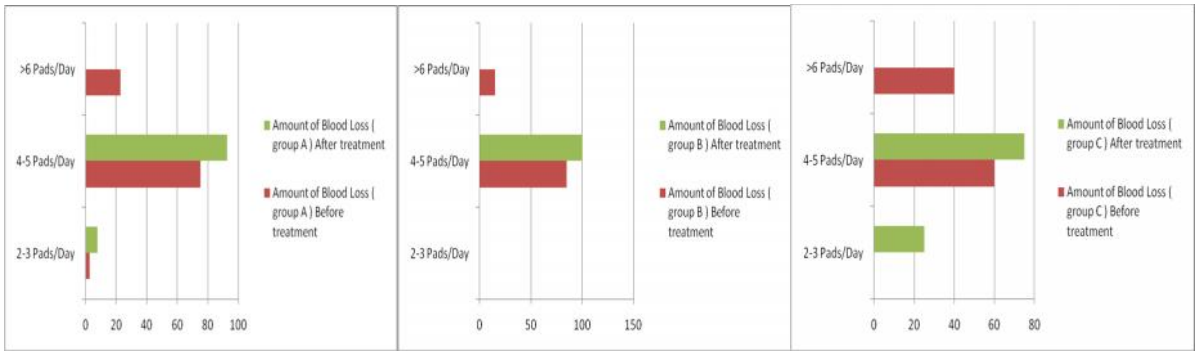
A) Effect on duration of bleeding



B) Inter menstrual period –



C) Amount of blood loss-



Darvyadi kashya showed improvement in duration and amount of bleeding but it was less effective in bleeding associated with short intermensrual period. Darvyadi tail uttar basti was effective in correction of short intermenstrual period but it had little effect on duration and amount of bleeding, it had no effect on darvyadi kashya and darvyadi tail uttar basti combemedly have statistically significant result on all the parameters i.e. duration of bleeding, intermenstrual period, amount of bleeding along with associated symptoms because because of systemic effect of kashay and local effect of uttar basti causes proper samprapti vighatana.

DISCUSSION:

As described earlier asrigdara is caused by vitiation of vata and pitta so any treatment which pacifies vitiated pita and vata a will give good result. Considering of this principle of treatment described in Ayuveda, darvyadi kashya and darvyadi tail uttar basti may act probably by following mode of action**.** There are eight drugs in Darvyadi Kwatha i.e. Daruharidra (*Berberis aristata*), Rasanjana (extract of

Berberis aristata in milk), Kiratatikta (*Swertia chirayta)*, Mustak (*Cyperus rotandus)* , Bilva (*Aegle marmelos)* , Arka (*Calotropis procera)*, Vasa (*Adhatoda vasica)* and Chandana (*Pterocarpus santalinus*) most of them having pittakapha shamaka and shodhaka,rakta shodhaka and stambhaka,garbhasaya balya, vatanulomana and Shothaharaproperties,which are useful in Asrigdara.

Modern researches about Daruhridra that helps in DUB due to it's-

Anti-inflammatory activity-it inhibites the transformation of lymphocytes[4], Berberineinhibits activator protein-1 activity,which is essential for inflammation in an *in vitro* study[5], Berberineinhibits the transcriptional activity of cyclo-oxygenase 2 (COX-2) enzyme in *in vitro* studies.COX-2 is induced by cytokines to engage in inflammation[6].

Antimicrobial activity (bacterial,fungal): possess antimicrobial activity versus Gram-positive,Gram-negative,fungal and protozoan organisms *in vitro*,through the inhibition of RNA and protein synthesis[7]. Daruharidra also have Anti-oxidant activity[8] and inhibites vascular permeability[9].

Modern researches about Kiratatikta that helps in DUB due to it's -

- Anti-inflammatory,anti-mutagenic, anti-oxidative and immunomodulatory effects[10,11,12]
- Protect from oxidative damage by inducing a compensatory increase in anti-oxidant defense mechanism[13,14]

Modern researches about Vasa that helps in DUB due to it's – Wound healing property[15], Anti ulcer property[16] ,Uterotonic property[17], Antibacterial property[18]

Modern researches about Mustaka that helps in DUB due to it's - Anti oxidant property[19], reducing tissue swelling and oozing of tissue fluid accompanying inflammation[20], Antimicrobial Activity[21] ,Anti Inflammatory Activity[22]

Modern researches about Chandana that helps in DUB due to it's – Anti-inflammatory[23],[24], Anti bacterial activity[25] ,*nitric oxide scavenging activity*[26], *Anti-oxidant activity*[27]*:*

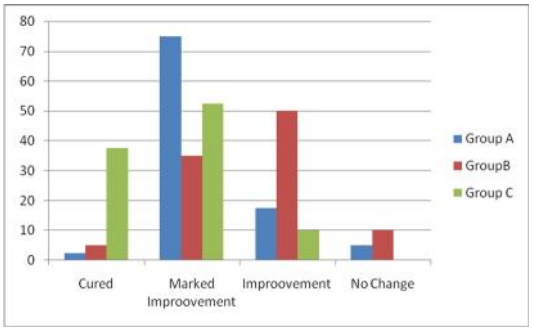
Modern researches about Arka that helps in DUB due to it's – Anti-inflammatory[28,29], wound healing activity, anti-ulcer effects[30], Antioxidant Activity[31,32]

Modern researches about Bilva that helps in DUB due to it's – Antioxidant Activity[33, 34], Anti-inflammatory activity[35, 36]

Basti-Basti has been described in samhita for specially vata dosha and vata is considered as regulating factor for pita, kapha and mala, basti normalizes the function of vata and indirectly regulates the pitta and kapha both. Asrigdara mainly apana vayu get vitiated and apana vata is regulating factor for normal flow of Artava. In samhitas has described the of vata vitiation in all gyanecologicla disorder and advocated uttar basti treatment for correction of Apana vata vitiation because role of drug administration and doshic vitiation is same so it helps to carrect local doshik disturbance, drug that are used in oil are having anti-inflammatory, antioxidant and decreasing vascular permeability may act on local endometrial environment and may have effect on vascular contractility, fragility and permeably by correcting local mediators. Effect of uttar basti is much better with Darvyadi kashaya in present study in comparisa to uttar basti alone.

Because in samprapti of Asrigdara pitta dosha is vitiated at systemic level and

vitiate rakta dhatu then it goes in garbhashayagata siras where it increases rakta pramana and causes Asrigdara. Modern science also accept that unbound estrogenic in body is increase by faulty life style and it increase vasodilation and increase blood supply in endometrium along with it increase local inflammatory response, oxidative damage and increase vascular fragility and permeably are increased in DUB. So drug which correct systemic disturbance as well as act on endometrial leel will be effective in asrigdara (DUB). Rakta shodhaka, rakta stambhaka, sangrahi and garbhashaya sattahara property help to regulate systemic as well as local doshik disturbance which is further potentiated by uttar basti. Because of samprapti vighatana at both level (systemic as well as uterine). **Result –** Improvement in all the three clinical features considered as cured,improvement in two out of three clinical feature considered as markedly improvement and improvement in one out of three clinical feature was considered as improvement .As shown in given graph below cure rate is maximum in Trial Group-C followed by Control Group-A and Trial Group-B.



CONCLUSION

Darvyadi kashya showed improvement in duration and amount of bleeding but it was less effective in bleeding associated with short inter menstrual period. Darvyadi tail uttar basti was effective in correction of short inter menstrual period but it had little effect on duration and amount of bleeding. Darvyadi Kashaya and Uttarbasti with Darvyadi Tail is helpful in managing heavy bleeding related to Asrigdara (~ DUB) effectively which is statistically more significant (p <.001) than Darvyadi Kashaya and Darvyadi Tail uttar basti given alone because of systemic effect of kashay and local effect of uttar basti causes proper samprapti vighatana.

REFERENCES

1. Agnivesha ,"Caraka Saṁhita", revised by Caraka and Dridhbala with "Vidyotini" commentary,by Kashi Nath Shashtri, edited by Pt. Rajeshwara Datta Shashtri, Chaukhambha bharati academy, Varanasi -221 001, (India), reprint 2008;Chikitsasthana 30/207-209
2. Vagbhatta, Ashtangahrdaya, with the commentaries, Sarvaṅgasundara of Arunadatta and Ayurvedarasayana of Hemadri, Editted by Pt. Hari Sadashiva Shastri Paradakara Bhisagacharya, Published by Chaukhambha Surbharati Prakashana, Varanasi.(2007); Uttarsthana 34/23
3. Susruta Samhita.JadhavjiTrikamji,editor.5th ed.Varanasi;Chaukhambha Orientalia; 1992. Uttarshana 38/21
4. Ckless, K., Schlottfeldt, J. L., Pasqual, M., Moyna, P., Henriques, J. A., and Wajner, M. Inhibition of in-vitro lymphocyte transformation by the isoquinoline alkaloid berberine. *J Pharm Pharmacol* 1995;47(12A):1029-1031. 8932689
5. Fukuda, K., Hibiya, Y., Mutoh, M., Koshiji, M., Akao, S., and Fujiwara, H. Inhibition by berberine of cyclooxygenase-2 transcriptional activ-

ity in human colon cancer cells. *J Ethnopharmacol* 1999;66(2):227-233. 10433483

6. Fukuda, K., Hibiya, Y., Mutoh, M., Koshiji, M., Akao, S., and Fujiwara, H. Inhibition by berberine of cyclooxygenase-2 transcriptional activity in human colon cancer cells. *J Ethnopharmacol* 1999;66(2):227-233. 10433483
7. Amin, A. H., Subbaiah, T. V., and Abbasi, K. M. Berberine sulfate: antimicrobial activity, bioassay, and mode of action. *Can J Microbiol* 1969;15(9):1067-1076. 4906191
8. Haisong J, Xiaojie L, Baolu Z, and et al. Scavenging effect of berbamine on active oxygen radicals in phorbol ester-stimulated human polymorphonuclear leukocytes. *Biochemical Pharmacology* 1990;39(11):1673.
9. Zhang, M. F. and Shen, Y. Q. [Antidiarrheal and anti-inflammatory effects of berberine]. *Zhongguo Yao Li Xue Bao* 1989;10(2):174-176. 2816420
10. Kumar IV, Paul BN, Asthana R, et al (2003). Swertia chirata mediated modulation of interleukin-1 beta, interleukin10,interferon-gamma and tumor necrosis factor-alpha in arthritic mice. *Immunopharmacol Immunotoxicol*, **25**, 573-83.
11. Scartezzini P, Speroni E (2000). Review on some plants of Indian traditional medicine with anti-oxidative activity. *J Ethnopharmacol*, **71**, 23-43.
12. Mandal S, Das PC, Joshi PC, et al (1992).Anti-inflammatory action of *Swertia chirata*.*Fitotherapia*, **63**, 122-8.
13. Muruganandan S, Gupta S, Kataria M, et al (2002). Mangiferin protects the streptozotocin-induced oxidative damage to cardiac and renal tissues in rats. *Toxicology*, **176**, 165-73.
14. Saha P, Mandal S, Das A, et al (2006). Amarogentin can reduce hyperproliferation by downregulation of COX II and upregulation of apoptosis in mouse skin carcinogenesis model. *Cancer Lett*, **244**, 252-9.
15. Bhargava MK, Singh H, Kumar A. Evaluation of *Adhatoda vasica* as a wound healing agent in buffaloes. Clinical, mechanical and biochemical studies. Indian Veterinary Journal 1988; 65(1):33.
16. Chaturvedi GN, Rai NP, Dhani R, Tiwari SK. Clinical trial of *Adhatoda vasica* syrup (vasa) in the patients of non-ulcer dyspepsia (Amlapitta). Ancient Science of Life 1983;3(1):19.
17. Claeson UP, Malmfors T, Wikman G, Bruhn JG.*Adhatoda vasica*: a critical review of ethnopharmacological and toxicological data. Journal of Ethnopharmacology 2000; 72:1.
18. Patel VK, Venkatakrishna BH. *In vitro* study of antimicrobial activity of *Adhatoda vasika Linn.* (leaf extract) on gingival inflammation a preliminary report. Indian J Med Sci 1984; 38(4):70-2.
19. Yazdan parast R ,Ardestani A. In vitro Anti oxidant and free radical scavenging activityof Cyperus rotundus, Journal of Medicinal Food. December 2007; 10(4): 667-674.
20. Puratchikody A, Nithya Devi C, Nagalakshmi G, Wound healing activity of cyperusrotundus linn, 2006; 68(1), 97-101.
21. Surendra Kumar Sharma, Ajay Pal Singh, Antimicrobial investigations on rhizomes of Cyperus rotundus

Linn., Der Pharmacia Lettre, 2011; 3(3): 427-431.
22. Biradar, Sandeep, Kangralkar VA, Mandavkar, Yuvaraj, Thakur, Megha, Chougule,Nilesh. Anti-inflamatory, Anti-Arthritic, Analgesic and Anti convulsant activity ofCyperus essential oils.International Journal of Pharmacy & Pharmaceutical Sciences.2010; 2(4): pp112-115.
23. Joshi SG. Medicinal Plants. New Delhi; Oxford & IBH Publishing Co. Pvt. Ltd.: 2003,pp. 157-158.
24. Saneja A, Kaushik P, Kaushik D, Kumar S, Kumar D. Antioxidant, Analgesic and Antiinflammatory Activities Of Santalum Album Linn. Planta Med,2009;75:102.
25. Rao KM, Carey MW, Kumar KM, Kumar E, Gopinath C. A Review on PharmacologicalImportance of Santalum album Linn. JPRD, 2013; 2(2): 170 – 173.
26. Paul AK et al, Clinical Evaluation of anIndigenous herbal Eye Drops Preparations,Indian Journal of Clinical Practice. 1992, 2 (11), 58-60.
27. Guo Shi-Kui et al; Immediate Effect of KuanXiong Aerosols in the Treament of Anginal attack, Journal of Medicinal Plant Research, 1983, 47,116.
28. Zafar, I., Muhammad, L. and Abdul, J.IJOD, 2013, 1
29. *Ghias Uddin et all* , **Phytochemical and Pharmacological Studies ofthe Whole Plant of *Calotropis procera***Middle-East Journal of Medicinal Plants Research 1(4): 71-74, 2012
30. Yoganarasimhan, S.N. 2011
31. Usman, R., A.Khan, S.Gul, A.Rauf andN. Muhammad, 2012. Evaluation of *In vitro*Anti-Oxidant properties of Selected Medicinal-Plants, Middle-East Journal of Medicinal Plants Research, 1(2): 28-31.
32. Uddin, G., A. Rauf and S. Akhtar, 2012. Studies onChemical Constituents, Phytochemical Profile andPharmacological Action of *Datura alba*, Middle-EastJournal of Medicinal Plants Research, 1(1): 14-18.
33. S. Sharmila, P.A.V. Devi, *Journal of Pharmacy Research*, **2011**, 4, 720-722.
34. S. Rajan, M. Gokila, P. Jency, P. Brindha, R.K. Sujatha, *Int. J. Curr. Pharm. Res.*,**2011**, 3,65-70.
35. Cb.V. Rao, A.S.K. Ojha, S. Mehrotra, P. Pushpangadan, *Acta Pharmaceutica Turcica*, **2003**,45, 85-91.
36. B.B. Mishra, S.P. Tripathi, *Singapore Journal of scientific Research*, **2011**, 1, 173-178.

CORRESPONDING AUTHOR

Dr. Sarita Mishra
(Ph.D. Scholar)
Department of Prasuti Tantra
Faculty of Ayurveda
IMS, BHU, Varanasi.
Email id -saritaimsbhu@gmail.com

Source of support: Nil
Conflict of interest: None Declared