Clinical Study on Khadir Kwath Dhavan and Kiratatikta Kwath Dhavan in the Management of Dushtavrana

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ABSTRACT

Sushrutacharya gives extensive information about Vrana, its types[1] and its different characteristics. Vrana and Shalya tantra seems to be inseparable. Wounds and their management are fundamental to the practice of surgery[2]. Chronic, non-healing wounds that are common now-a-days have become a challenge to the medical fraternity. Dushtavrana is not an uncommon medical entity. Once Dushtavrana is formed it shows symptoms like Atisanvruta, Ativivruta, Atikathin, Atimrudu, Daha, Raga, Paka[3]. According to modern literature similar entity could be found as nonhealing ulcer. There are some correlations between Dushtavrana and nonhealing ulcer in the etiopathogenesis and clinical features. An ulcer is a break in the continuity of the covering epithelium. Chronic ulcers are wounds that fail to heal. So, for the purpose of wound healing, we need the treatment or medicine which possesses the Shodhana and Ropana properties which remove unhealthy granulation tissue without causing much damage to the healthy granulation tissue. For which Aacharya Sushruta mentioned sixty Upkramas in Chikitsasthan. Kashaya Dhavan is one of the Upkrama described in it, which is prescribed for the wounds.

Keyword- Dushtavrana, Samprapti, Chikista, vrana upakrama, Khadir Kwath Dhavan And Kiratatikta Kwath Dhavan

INTRODUCTION

Ayurveda is a holistic ancient science being practiced in the last 5000 years and prefer health maintenance much more than curing a disease as main aim of Ayurveda is to cure the disease and maintain health state[4]. Sushrutacharya gives extensive information about Vrana, its types and its different characteristics[5]. Vrana and Shalya tantra seems to be inseparable. Wounds and their management are fundamental to the practice of surgery[6]. Today wound is said to be healed when epithelization is complete. But Sushruta described „Vaikritapaham"[7] which brings back the normal color and surface and even hairs. Thus, this is one of the reasons for him to be called as "The Father of plastic surgery".Sushruta has classified the Vrana under Chikitsa, Akruti, Shabda, andDushta Vrana Category as follows-

Table No 1-Vrana

Chikista, Aakruti, Shabda, Sparsha, Dosha

Chikitsa		Aakruti	Shabda	Sparsha	Dushtavrana
Suchikitsya	Duschikitsya				
Ayata	Shakti	Ayata	Kshveda	Atyarthvedana	Vataja
Chaturasra	Dhuvaja	Chaturasra	Ghurghura	Dahante	Pittaja
Vritta	Ratha	Mandala	Jvalanita		Kaphaja
Triputaka	Kunta	Triyasra	Pavanvat		Raktaja
	Jali	Ardhachandra			Sannipataja
	Vrana	Kutila			Agantuja
	Gau	Vishala			
	Vrisha	Sharavasadasha			
	Prasadakrutya	Yavamadhya			
	Churnita				

Samprapti Ghataka

- **Dosha:** Tridosha (mainly Vata and Kapha)
- **Dushya:** Rasa, Mamsa, Asthi, Majja, Snayu and Kandara
- **Srotas:** Rasavaha, Raktavaha, Mamsavaha.
- **Srotodushti:** Sanga and Vimarg-gamana
- **Agni:** Madangni
- **Udbhava sthana:** anywhere in the body
- **Roga Marga:** Madhyama
- **Vyakti sthana:** Whole body

Vrana Chikitsa[8]
Acharya Sushruta mentioned 7 Upakramas in

Vranashopha which are elaborate in the Vrana as 60 Upkramas for the treatment of Vrana. Acharya Charaka has mentioned 36 Upakramas for the treatment of Vrana.

Vrana chikitsa can be divided as

a) Samanya Chikitsa
b) Vishesh Chikitsa

Pathya – Apathya[9]:-

Pathya:-

1. Food prepared with Jeerna Shali should be taken with little Ghee and Jangala MamsaRasa.
2. Thanduleeyakam, Jeevanthi, Sunishannakam, Vasthukam, Patolam, Bala Moolakam, Varthakam, Karavellakam, Dadimam, Amalakam and Mudgam are indicated in Vrana rogi.

Apathya:-

1. Divaswapnam, Ayasam and Maithunam, Nava Dhanyam, Masha, Kulatha, Haritha, Saka, Amla,Lavana, Katuka Guda, Pishta Vikruthi, Valloora, Sushka Saka, Sarpis, Ajamamsam, Anoopamamsam, Vasa, Seeta Jalam.
2. Krishara, Payasam, Dadhi and Takram should be avoided in Vrana rogi. Intake of these food items aggravates the Dosha vitiation.
3. All types of Madya including the Maireyam, Arishta, Asava, Seedhu and Sura. Because of the Amla, Rooksha, Theekshna, Ushna and Asukari properties it will aggravate the Vrana.

Drug Review [10-]

Khadira:-
KhadirTwak
Latin name – Acacia Catechu
Family- Shimbi kula (Leguminosae); Babbula upakula (Mimosaceae)
Guna –Kushthaghna,Kashayaskandha(ch); Shalasaradi (su)
 Local name – Acacia Catechu, Wild.
Synonyms – Raktasara, Dantadhavana,Kantaki,Balapatra+, Yadniya, Yadnyanga, Gayatri, Saradruma, Kushthaghna.
Regional Names- Marathi – Khadira, English – Catechu tree, Hindi – Khaira
Part used – Bark, Khadirasara (gum catechu)

Properties –

Rasa – Tiktakashaya
Vipaka – katu
Veerya – Sheeta
Guna – Laghu and ruksha.
Prabhava – Kushthaghna.

Action and uses –
Doshaghnata – Being tikta, kashaya, and sheeta, it is Pittaghna; Kaphaghna due to all attributes except its sheeetveerya. Raktashodhaka, Raktastambhaka, Grahi, Shothahara, Stambhaka.

Dose –
Churna – 1 to 3 gm, Decoction – 40 to 80 ml Catechu – 0.5 to 1gm
Kalpa- Khadirarishtha,KhadirKwatha,Khadiradivati and khadirashtaka.

Chemical composition - Catechu contains catechin and catechu tannic acid.

KIRATATIKTA: -

Kiratatikta Patra

- **Guna** – Tiktaskandha, Stanyashodhana, Trishnanigrahana, (ch); Aragvadhadi (su).
- **Family** – Bhoonimbakula
- (Gentiniaceae).
- **Latin name** – Swertia chairaita. Rox ex. Flom
- **Synonyms**-Kirata, Bhunimba, Naipal, Kirataka Naditikta,
- Jvarantaka, Katutikta, Nidrari, Ramsevaka, etc.
- **Regional names** –
- Marathi – Kadechairait, Kirait, Hindi – Chirayata
- English – Chiretta.
- **Parts used** – Panchanga
- **Properties** –
- **Rasa** – Tikta, **Vipaka**- Katu, **Veerya**- Sheeta,**Guna** – Laghu Ruksh

Action and Uses:-
Kiratatikta is useful in Sannipata Jwara, Asthama, Kapha, Pitta, Rakta, burning sensation, cough, inflammatory condition, thirst, skin ailment, Jwara, Vrana and Krimi.

Chemical Composition –

The panchanga contains xanthones, mangiterine and gentiamin. Bitter principles should be 1.3 pc.per I.P.

Dose – Kwath- 25 to 50 ml, Churna – 1 to 4 gm.

Kalpa– Sudarshan Churna, Kiratatiktadi Kwath, Bhunimbadi Kwath, Medoyogasharkara and Kiratadi Taila.

MATERIAL AND METHODS

Khadir Kwath and Kiratatikta Kwath were prepared as per classical text[11].

Selection of Patients -
Sixty patients were selected from OPD and IPD of PMT'S Ayurvedic Hospital, irrespective of their age, sex, and socioeconomic status. Detail history of patient is obtained as per prepared proforma.

Study Group –
Total no. of 60 patients is divided into two groups, Group A and Group B, 30 patients in each group.

Consent –
An informed consent is obtained from every patient before including to trail.

Group A – Trail group-

30 patients will be treated with Khadirkwath Dhavan.

Group B – Control group-

30 patients will be treated with Kiratatikta Kwath Dhavan.

Duration of treatment-

All the patients were treated till Shudhavrana Lakshanas appear with maximum duration of 7 days.

Dose – According to requirement.
Frequency- Once a day
Duration- 7 days
Observation – Everyday
Dressing – Sterile dressing done after Dhavan, every day.

Methods of Selection of Study subjects

Inclusion Criteria: -

1. Age – 20 to 60 years
2. Sex – both male and female
3. Wound Size – any size

Exclusion Criteria:

1. Peripheral arterial disease
2. Neuropathy
3. Malignant ulcer, bleeding disorder
4. Patients with Tuberculosis, Diabetes mellitus, Hypertension, HIV, HbsAg positive, Gangrene, D.V.T.

Diagnostic Criteria-
Patient with classical signs and symptoms of Dushtavrana

1. Putipuya
2. Ativedana
3. Daha
4. Kandu Shopha

Clinical assessment:
Assessment Criteria:
Subjective parameter-
Vrana Vedana
Vrana Daha
Vrana Gandha
Objective parameter –
Vrana Strava
Vrana Akara,
Vrana Oshta,
Vrana Varna

All After that respective therapy was given till appearance of signs of Shuddha Vrana or for maximum period of 7 days.
above clinical signs and symptoms were noted before commencement of the treatment.

Vedana (Pain) VAS –Visual Analogue Scale

GRADE	Criteria of Assessment
00	No pain
01	Pain felt during movement
02	Pain felt even during rest but not disturbing
03	Continuous pain and disturbs sleep

Strava (Discharge)

GRADE	Criteria of assessment
00	No strava
01	Scanty serous discharge with minimum soakage
02	Frank discharge present, change in dressing pad needed twice daily
03	Profuse continues discharge which need frequent change in dressing (more than two times)

Oshta (Margin)

GRADE	Criteria of assessment
00	No margin even in granulation
01	Smooth and sloping
02	Regular but inflamed
03	Rough, irregular and inflamed

Akara (Size)

GRADE	Criteria of assessment
00	No discontinuity of skin or mucous membrane
01	1/4 of previous area and depth of wound
02	½ of previous area and depth of wound
03	Day 1st area and depth of wound

Daha (Burning)

GRADE	Criteria of assessment
00	No burning
01	Burning sensation intermittent
02	Continuous burning sensation which do not disturb sleep
03	Continuous burning sensation which disturbs sleep

Gandha (Smell)

GRADE	Criteria of assessment
00	No smell
01	Foul smell Intermittent
02	Foul smell when bandage is open
03	Foul smell after bandage is done

Varna (colour)

| GRADE	Criteria of assessment
00	Twaka varanata
01	Kapot Varanata
02	Jivhatalabho
03	Krushna, Rakta, Pita, shukla varna

OBSERVATION AND RESULTS

Table No. 2: Vrana Vedana before treatment wise distribution

Vrana Vedana	Group (A)		Group (B)		Total	
	No. of patients	Percentage	No. of patients	Percentage	No. of	Percentage
No pain	9	30.00%	10	33.33 %	19	31.67 %
Pain felt during movement	16	53.33 %	16	53.33 %	32	53.33 %
Pain felt even during rest but not disturbing the sleep	3	10.00 %	4	13.33 %	7	11.67 %
Continuous pain and disturbs sleep	2	6.67%	0	0.00%	2	3.33%
Total	**30**	**100 %**	**30**	**100%**	**60**	**100%**

In Group A – maximum 16 (53.33 %) patients were having Pain felt during movement, 9 (30 %) patients were having No Pain,(10 %) patients were having Pain felt even during rest but not disturbing the sleep, and 2 (6.67 %) patients were having Continuous pain and disturbs sleep.

Where in Group B – majority of patients i.e. 16 (53.33 %) were having Pain felt during movement, 10 (33.33 %) patients were having No Pain, 4 (13.33 %) patients were having Pain felt even during rest but not disturbing the sleep.
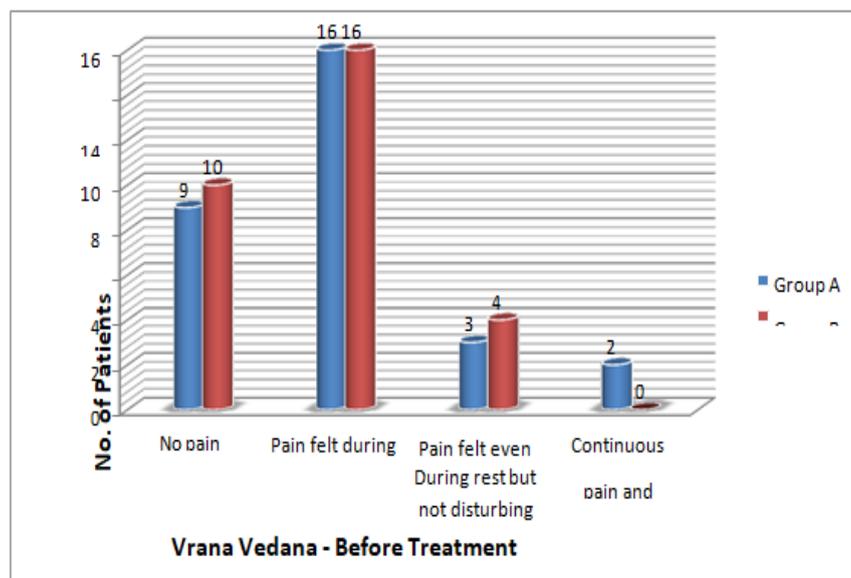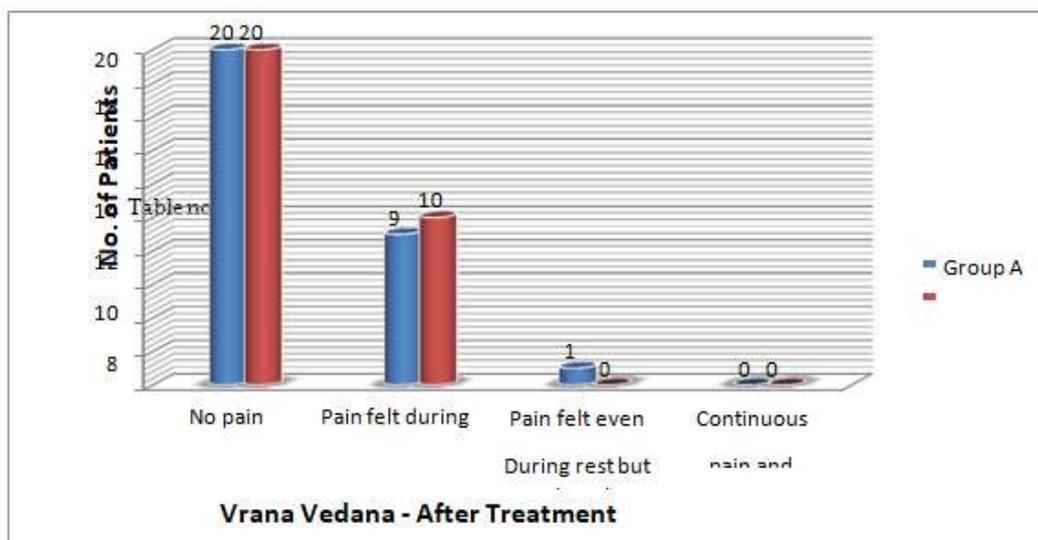
Table No. 3: Vrana Vedana before treatment wise distribution

Vrana Vedana	Group (A)		Group (B)		Total	
	No. of patients	Percentage	No. of patients	Percentage	No. of patients	Percentage
No pain	20	66.67 %	20	66.67 %	40	66.67 %
Pain felt during movement	9	30.00 %	10	33.33 %	19	31.67 %
Pain felt even during rest but not disturbing the sleep	1	3.33%	0	0.00%	1	1.67%
Continuous pain and disturbs sleep	0	0.00%	0	0.00%	0	0.00%
Total	**30**	**100 %**	**30**	**100%**	**60**	**100%**

Where in

In Group A – maximum 20 (66.67 %) patients were having No Pain, 9 (30 %) patients were having Pain felt during movement, and 1 (3.33 %) patients were having Pain felt even during rest but not disturbing the sleep.

Group B – majority of patients i.e. 20 (66.67 %) were having No Pain, and 10 (33.33 %) patients were having Pain felt during movement.
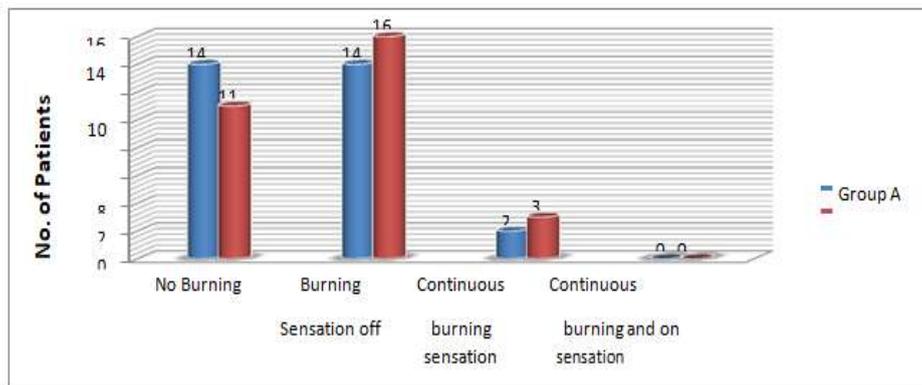
Table no. 5: Vrana Daha Before treatment wise distribution

Vrana Daha	Group (A)		Group (B)		Total	
	No. of patients	Percentage	No. of patients	Percentage	No. of patients	Percentage
No Burning	14	46.67 %	11	36.67 %	25	41.67 %
Burning sensation off and on	14	46.67 %	16	53.33 %	30	50.00 %
Continuous burning sensation which do not disturb sleep	2	6.67%	3	10.00 %	5	8.33%
Continuous burning sensation which disturbs sleep	0	0.00%	0	0.00%	0	0.00%
Total	**30**	**100 %**	**30**	**100%**	**60**	**100%**

In Group A – maximum 14 (46.67 %) patients were having No Burning, another 14 (46.67 %) patients were having Burning sensation off and on, and 2 (6.67 %) patients were having Continuous burning sensation which do not disturb sleep.

Where in Group B – maximum another 16 (53.33 %) patients were having Burning sensation off and on, 11 (36.67 %) patients were having No Burning, and 3 (10 %) patients were having Continuous burning sensation which do not disturb sleep.

Vrana Daha	Group (A)		Group (B)		Total	
	No. of patients	Parcen stage	No. of patients	Parcen stage	No.of patients	Percentage
No Burning	26	86.67 %	23	76.67 %	49	81.67 %
Burning sensation off and on	4	13.33 %	7	23.33 %	11	18.33 %
Continuous burning sensation which do not disturb sleep	0	0.00%	0	0.00%	0	0.00%
Continuous burning sensation which disturbs sleep	0	0.00%	0	0.00%	0	0.00%
Total	30	100 %	30	100%	60	100%

In Group A – maximum 26 (86.67 %) patients were having No Burning, and 4 (13.33 %) patients were having Burning sensation off and on. **Where in Group B** – maximum 23 (76.67 %) patients were having No Burning, and 7 (23.33 %) patients were having Burning sensation off and on.
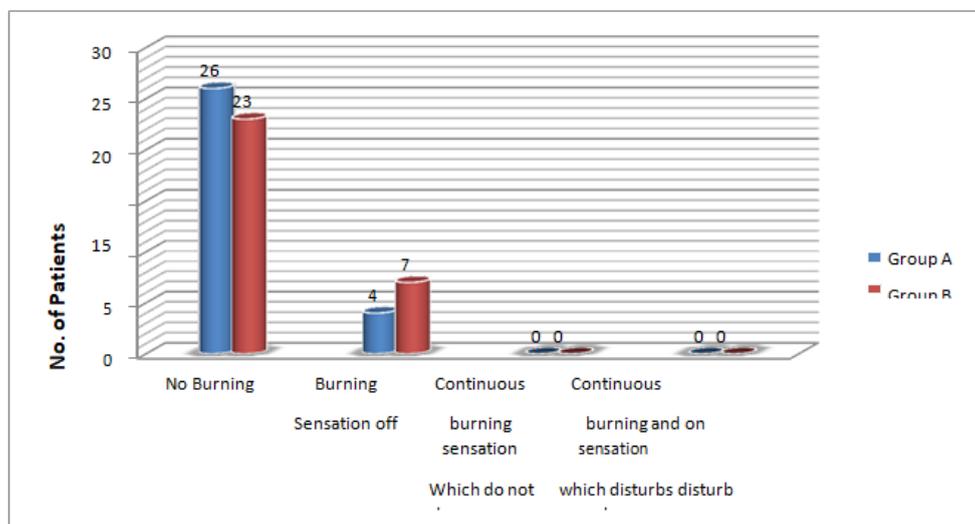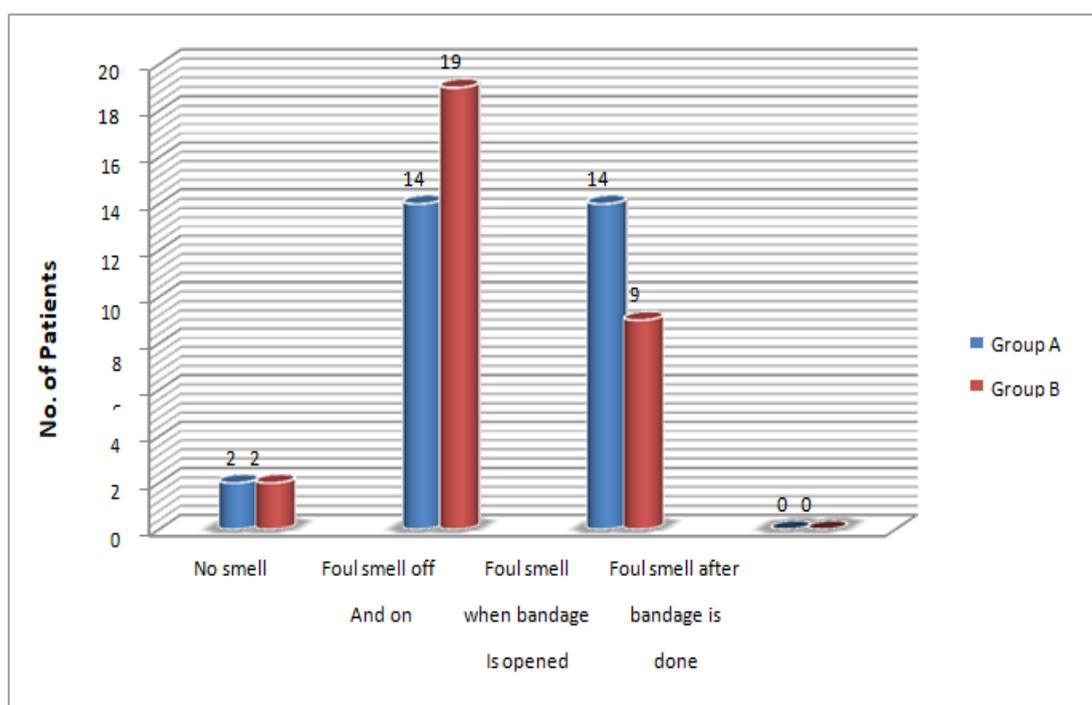
Table no. 7 . Vrana Gandha – Before treatment wise distribution

Vrana Gandha	Group (A)		Group (B)		Total	
	No.of patients	Percentage	No. of patients	Percentage	No. of patients	Percentage
No smell	2	6.67%	2	6.67%	4	6.67%
Foul smell off and on	14	46.67 %	1 9	63.33 %	33	55.00 %
Foul smell when bandage is opened	14	46.67 %	9	30.00 %	23	38.33 %
Foul smell after bandage is done	0	0.00%	0	0.00%	0	0.00%
Total	**30**	**100 %**	**30**	**100%**	**60**	**100%**

In Group A – maximum 14 (46.67 %) patients were having Foul smell off and on, another 14 (46.67 %) patients were having Foul smell when bandage is opened, and 2 (6.67 %) patients were having No smell.

Where in Group B – majority of patients i.e. 19 (63.33 %) were having Foul smell off and on, 9 (30 %) patients were having Foul smell when bandage is opened, and 2 (6.67 %) patients were having No Smell.

Table no 8 – Vrana Gandha After treatment wise distribution

Vrana Gandha	Group (A)		Group (B)		Total	
	No.of patients	Percentage	No. of patients	Percentage	No. of patients	Percentage
No smell	19	63.33 %	19	63.33 %	38	63.33 %
Foul smell off and on	9	30.00 %	7	23.33 %	16	26.67 %
Foul smell when bandage is opened	2	6.67%	4	13.33 %	6	10.00 %
Foul smell after bandage is done	0	0.00%	0	0.00%	0	0.00%
Total	30	100 %	30	100%	60	100%

In Group A – maximum 19 (63.33 %) patients were having No smell, 9 (30 %) patients were having Foul smell off and on, and 2 (6.67 %) patients were having Foul smell when bandage is opened.

Where in Group B – majority of patients i.e. 19 (63.33 %) were having NO Smell, 7 (23.33 %) patients were having Foul smell off and on, and 4 (13.33 %) patients were having Foul smell when bandage is opened.
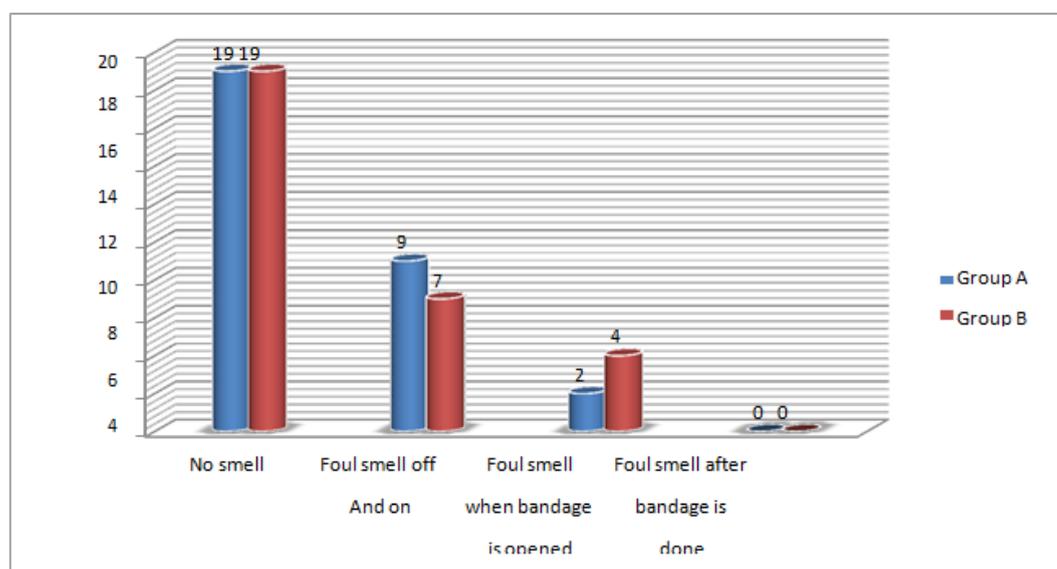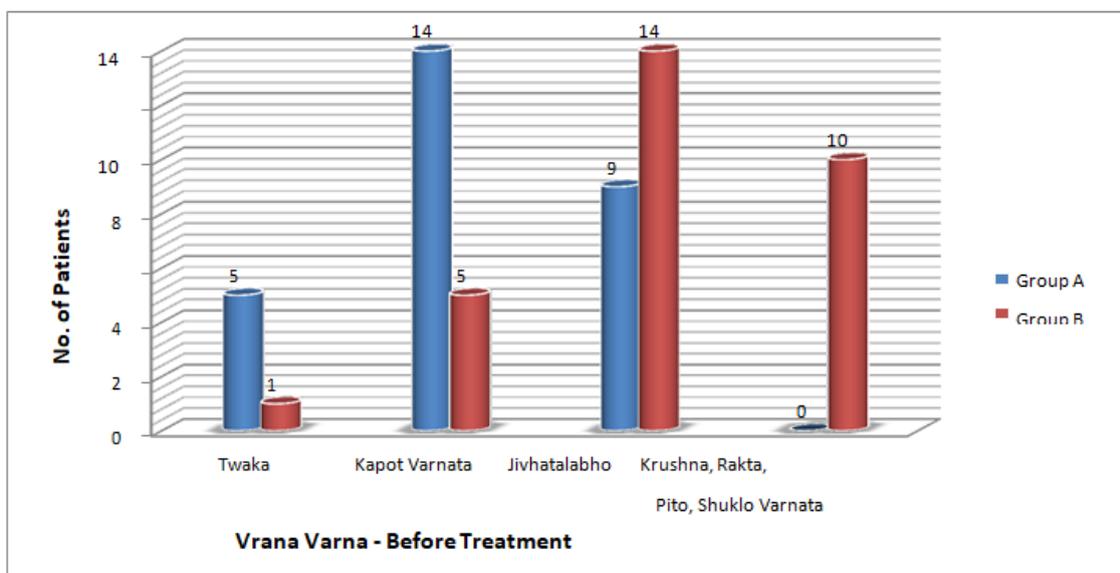
Table no9 – Vrana Varna – Before treatment wise distribution In Group A – maximum 14 (46.67 %) patients were having Kapot Varnata, 9 (30 %) patients were having Jivhatalabho, and 5 (16.67 %) patients were having Twaka Varanata.

Where in Group B – maximum 14 (46.67 %) patients were having Jivhatalabho, 10 (33.33 %) patients were having Krushna, Rakta, Pito, Shuklo Varnata, 5 (16.67 %) patients were having Kapot Varnata, and 1 (3.33 %) patients were having Twaka Varanata.

Table no 9: Vrana Varna before treatment wise distribution

Vrana Varna	Group (A)		Group (B)		Total	
	No. of patients	Percen tage	No. of patien ts	Percen tage	No.of patients	Perce ntage
Twaka Varanata	5	16.67 %	1	3.33%	6	10.00 %
Kapot Varnata	14	46.67 %	5	16.67 %	19	31.67 %
Jivh atalabho	9	30.00 %	14	46.67 %	23	38.33 %
Krus hna, Rakta, Pito, Shuklo Varnata	0	0.00%	10	33.33 %	10	16.67 %
Total	30	100 %	30	100%	60	100%

Table no 9: Vrana Varna After treatment wise distribution

Vrana Varna	Group (A)		Group (B)		Total	
	No. of patients	Percen tage	No. of patien ts	Percen tage	No.of patien ts	Perce nTage
Twaka Varanata	17	56.67 %	12	40.00 %	29	48.33 %
Kapot Varnata	8	26.67 %	12	40.00 %	20	33.33 %
Jivhatalab ho	5	16.67 %	6	20.00 %	11	18.33 %
Krushna, Rakta, Pito, Shuklo Varnata	0	0.00%	0	0.00%	0	0.00%
Total	30	100 %	30	100%	60	100%

In Group A – maximum 17 (56.67 %) patients were having Twaka Varanata, 8 (26.67 %) patients were having Kapot Varnata, and 5 (16.67 %) patients were havingJivhatalabho.

Where in Group B – maximum 12 (40 %) patients were having Twaka Varanata, another 12 (40 %) patients were having Kapot Varnata, and 6 (20 %) patients were having Jivhatalabho.
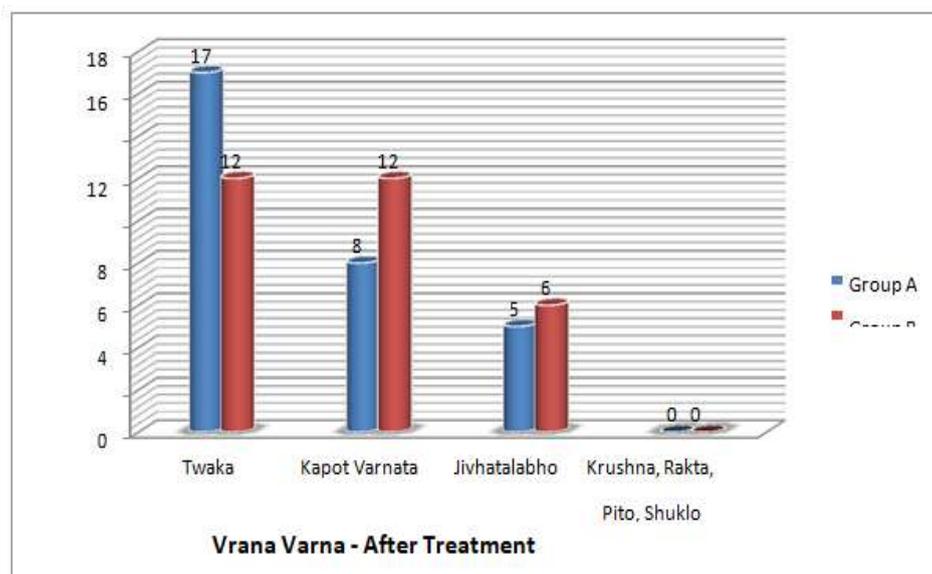
COMPARATIVE ANALYSIS

Statistical Analysis:-

The null hypothesis, H_0: The effect of treatment on all symptoms in KHADIRKWATH DHAWAN (Group A) is not significant than in KIRATATIKTAKWATH DHAWAN (Group B).

The alternative hypothesis H_1: The effect of treatment on all symptoms in KHADIRKWATH DHAWAN (Group A) is significant than in KIRATATIKTAKWATH DHAWAN(Group B).

All the values in following tables are calculated by using Mann

Table no. 10

Symptom	Vrana Vedana
Mean of Group A	0.567
Mean of Group B	0.467
S.D (+) of Group A	0.678
S.D (+) of Group B	0.571
S.E. (+) of Group A	0.124
S.E. (+) of Group B	0.104
U	422.5
U „	477.5
P	>0.05

Whitney test for subjective criteria. Let us see the statistical analysis for every symptom separately here is no significant difference in mean of Group A and mean of Group B and p value is greater than the significance level alpha = 0.05, we should accept the null hypothesis H_0 and reject the alternative hypothesis H_1, i.e. there is no significant difference between effect of KHADIRKWATH DHAWAN (Group A) and effect of KIRATATIKTAKWATH DHAWAN (Group B) for Vrana Vedana.

Vrana Daha
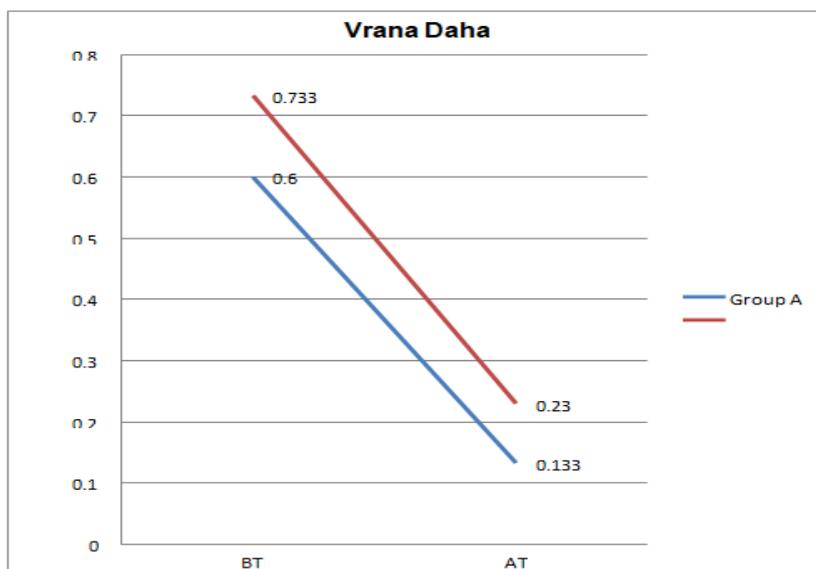
Graph no. 11: according to table no. 11 and 18
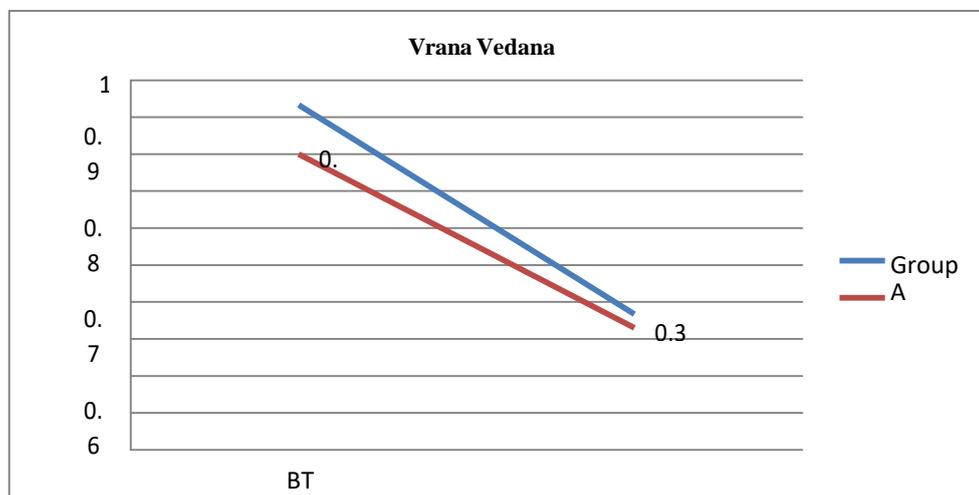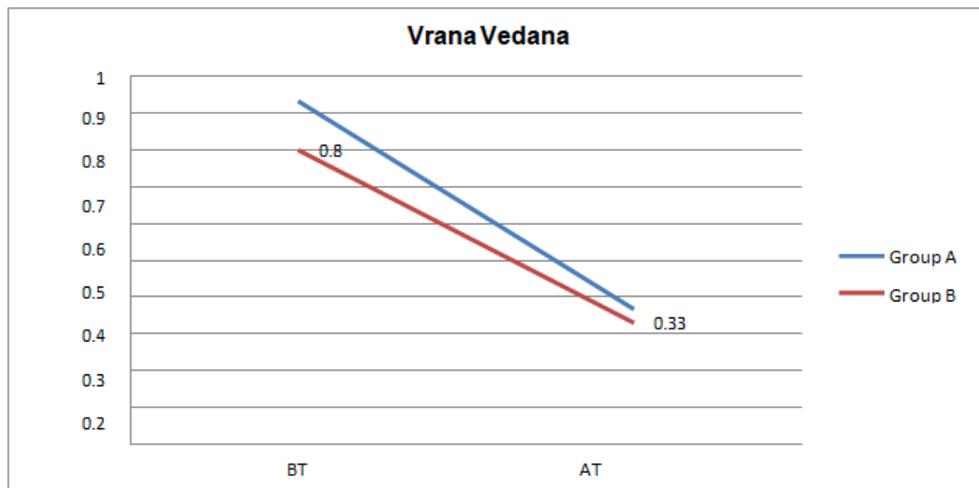
There is no significant difference in mean of Group A and mean of Group B and p value is greater than the significance level alpha = 0.05, we should accept the null hypothesis H_0 and reject the alternative hypothesis H_1, i.e. there is no significant difference between effect of KHADIRKWATH DHAWAN (Group A) and effect of KIRATATIKTAKWATH DHAWAN (Group B) for Vrana Daha.

Table no. 11

Symptom	Vrana Daha
Mean of Group A	0.467
Mean of Group B	0.5
S.D (+), of Group A	0.507
S.D (+), of Group B	0.508
S.E. (+), of Group A	0.09
S.E. (+), of Group B	0.09
U	435
U „	465
P	>0.05

Table no. 12

Symptom	Vrana Gandha
Mean of Group A	0.967
Mean of Group B	0.733
S.D (+), of Group A	0.718
S.D (+), of Group B	0.639
S.E. (+), of Group A	0.131
S.E. (+), of Group B	0.116
U	371.5
U „	528.5
P	<0.05

Mean of Group A is more than mean of Group B and p value is lower than the significance level alpha = 0.05, we should reject the null hypothesis H_0 and accept the alternative hypothesis H_1, i.e. KHADIRKWATH DHAWAN (Group A) is significant than in kiratatiktakwath dhawan(Group B) for Vrana Gandha.

**Graph no. 12, according to table no. 12 and 19**
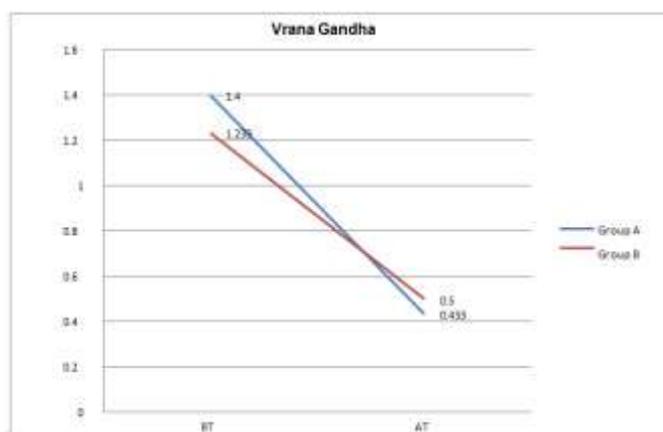
Table no. 13

Symptom	Vrana Varna
Mean of Group A	1.6
Mean of Group B	1.3
S.D (+), of Group A	0.562
S.D (+), of Group B	0.535
S.E. (+), of Group A	0.102
S.E. (+), of Group B	0.097
U	333.5
U „	566.5
P	<0.05

Mean of Group A is more than mean of Group B and p value is lower than the significance level alpha = 0.05, we should reject the null hypothesis H_0 and accept the alternative hypothesis H_a, i.e. KHADIRKWATH DHAWAN (Group A) is significant than in KIRATATIKTAKWATH DHAWAN(Group B) for Vrana Varna.
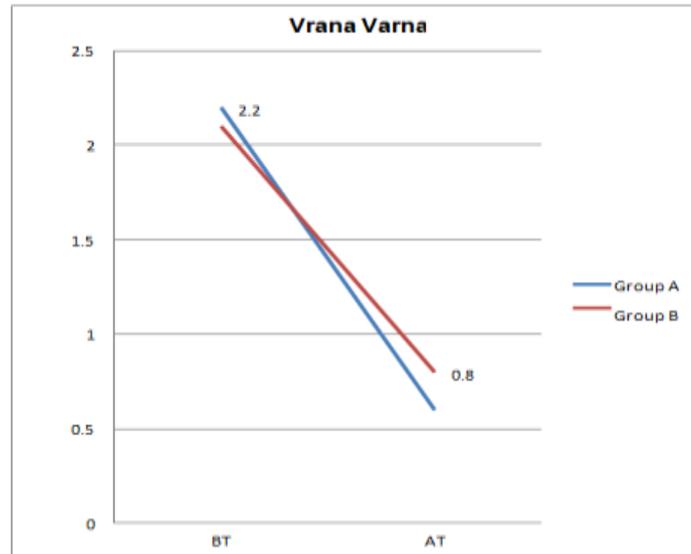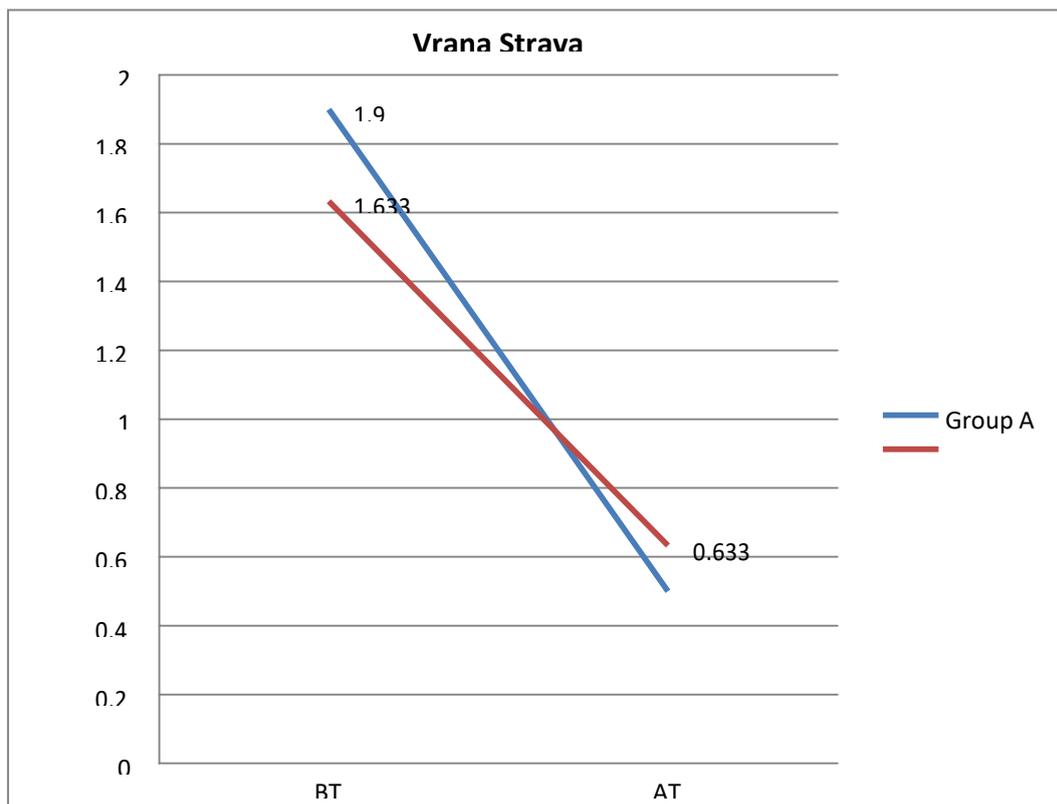
Table no. 14

Symptom	Vrana Oshtha
Mean of Group A	1.4
Mean of Group B	1.567
S.D (+), of Group A	0.724
S.D (+), of Group B	0.678
S.E. (+), of Group A	0.132
S.E. (+), of Group B	0.124
U	390
U „	510
P	<0.05

Mean of Group B is more than mean of Group A and p value is lower than the significance level alpha = 0.05, we should accept the null hypothesis H_0 and reject the alternative hypothesis H_a, i.e. KHADIRKWATH DHAWAN (Group A) is insignificant than in Kiratatiktakwath Dhawan (Group B) for Vrana Oshtha.
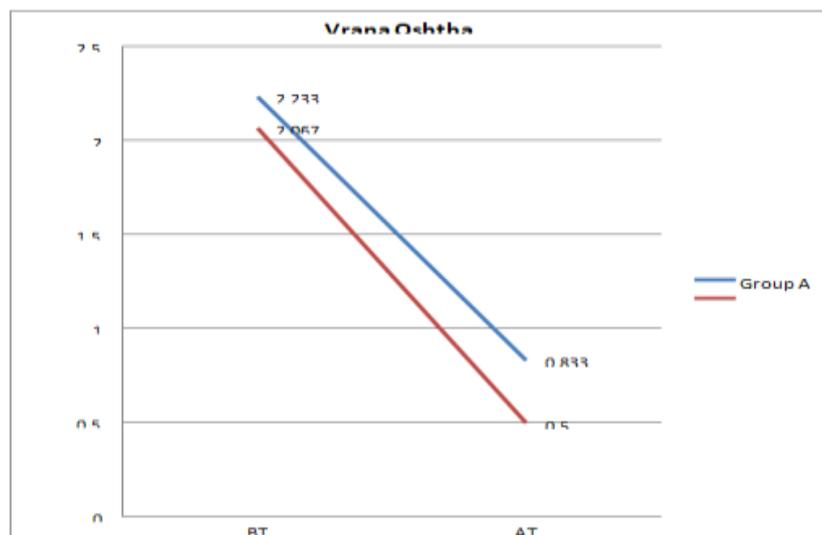
Table no. 15

Symptom	Vrana Strava
Mean of Group A	1.4
Mean of Group B	1

Graph no. 15, according to Table no. 15 and 22

S.D (+), of Group A	0.813
S.D (+), of Group B	0.909
S.E. (+), of Group A	0.148
S.E. (+), of Group B	0.166
U	327
U „	573
P	<0.05

Mean of Group A is more than mean of Group B and p value is lower than the significance level alpha = 0.05, we should reject the null hypothesis H_0 and accept the alternative hypothesis H_a, i.e. KHADIRKWATH DHAWAN (Group A) is significant than in KIRATATIKTAKWATH DHAWAN(Group B) for Vrana Strava.

Table no. 16

Symptom	Vrana Aakara
Mean of Group A	1
Mean of Group B	1.033

S.D (+), of Group A	0.643
S.D (+), of Group B	0.764
S.E. (+), of Group A	0.117
S.E. (+), of Group B	0.139
U	438
U „	462
P	>0.05

There is no significant difference in mean of Group A and mean of Group B and p value is greater than the significance level alpha = 0.05, we should accept the null hypothesis H_0 and reject the alternative hypothesis H_1, i.e. there is insignificant difference between effect Of Khadirkwath Dhawan (Group A) and effect of Kiratatiktakwath Dhawan (Group B) for Vrana Aakara.

**Graph no. 16, according to table no. 16 and 23**
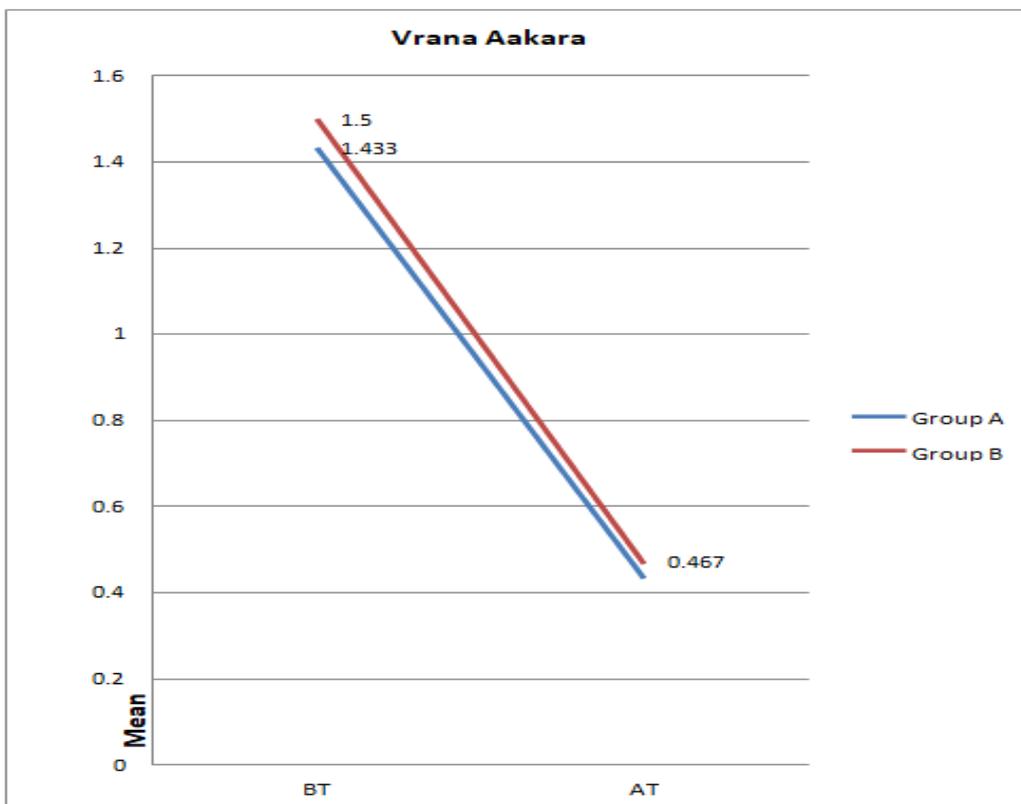
Table no. 17: Overall Effect of Therapy

Result	Group A		Group B	
	Number of patients	%	Number of patients	%
Cure (75 to 100 %)	10	33.33%	6	20.00%
Significantly cure (50 – 75 %)	19	63.33%	15	50.00%
Partially cure (25 – 50 %)	1	3.33%	9	30.00%
Not cure (0 to 25 %)	0	0%	0	0%

In **Group A of KHADIRKWATH DHAWAN** out of 30 patients, Cure (75 to 100 % relief) was noted in 10 patients i.e. 33.33 %, Significantly cure (50 to 75 % relief) was noted in 19 patients i.e. 63.33 %, Partially cure (25 to 50 % relief) was noted in 1 patient i.e. 3.33 %, and no one was noted in Not cure (0 to 25 % relief).

In **Group B of KIRATATIKTA KWATH DHAWAN** out of 30 patients, Cure (75 to 100 % relief) was noted in 6 patients i.e. 20 %, Significantly cure (50 to 75 % relief) was noted in 15 patients i.e. 50 %, Partially cure (25 to 50% relief) was noted in 9 patients i.e. 30 %, and no one was noted in Not cure (0 to 25 % relief).
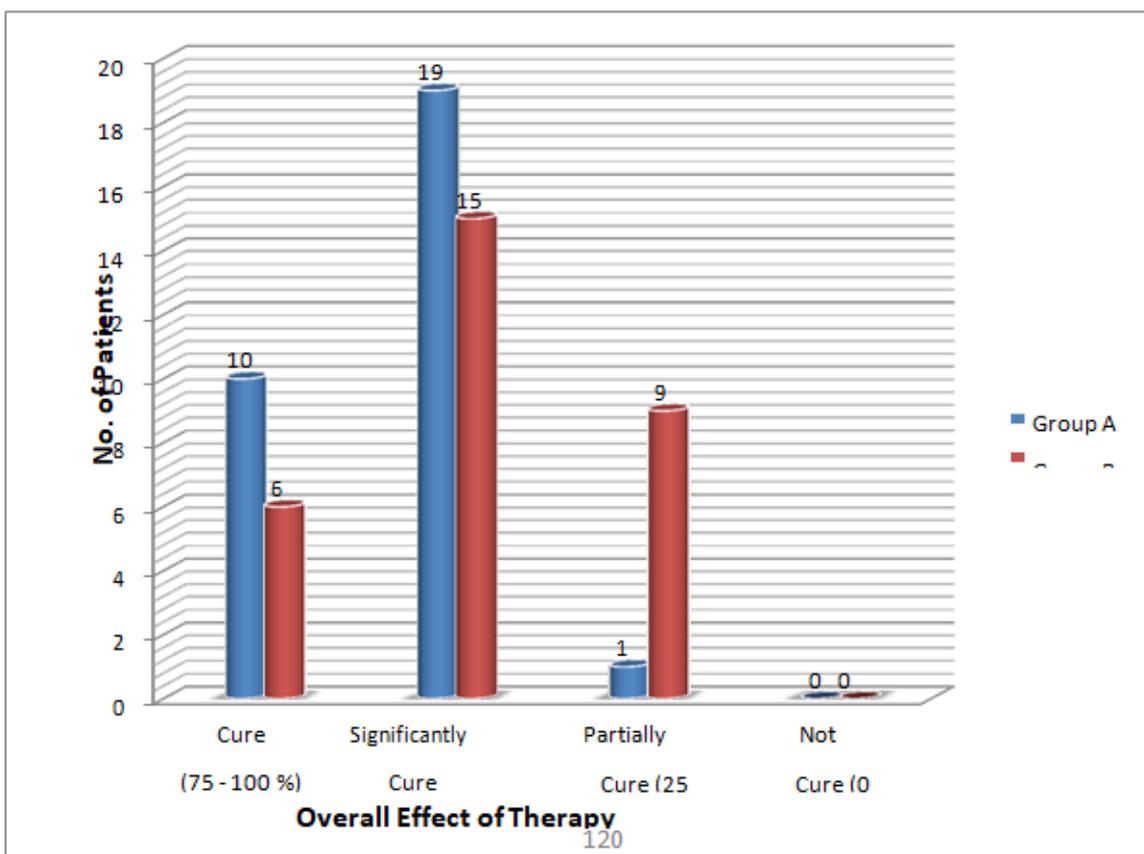
DISCUSSION

➢ **Group A** – Trail group-
o 30 patients will be treated with Khadirkwath dhavan.

➢ **Group B** – Control group-
o 30 patients will be treated with Kiratatikta kwath dhavan.
o All these patients were selected, examined and investigated routinely.

➢ **Effect of therapy on Vrana Vedana -**
o In this pain felt during movement before treatment were (53.33 %) which after treatment turns into (31.67%) in group A, while in group B 53.33% reduces to 33.33%. 31.67% were those which having no pain before treatment turns into 66.67% in group A, while 33.33% in group B reduces to 66.67%. There is no significant difference between effect of Khadirkwath Dhavan and effect of Kiratatiktakwath Dhavan for Vrana Vedana.

➢ **Effect of therapy on Vrana Daha**
o In this Burning sensation off and on (46.67%, 53.33%) before treatment was reduces to (13.33%, 23.33%). No Burning (46.67% 36.67%) change to (86.67%, 76.67%) respectively. There is no significant difference between effect of Khadirkwath Dhavan and effect of Kiratatiktakwath Dhavan for Vrana Daha.

➢ **Effect of therapy on Vrana Gandha**
o Foul smell off and on (46.67%, 63.33%) before treatment was turn into (30.00%, 23.33%). Foul smell when bandage is opened (46.67%, turn into (6.67%, 13.33%)Khadirkwath Dhavan is significant than in Kiratatiktakwath Dhavan for Vrana Gandha.

➢ **Effect of therapy on Vrana Varna-**
o Kapot Varnata (46.67%, 16.67%) change into (26.67%, 40.00%) after treatment, Twaka Varanata (16.67%, 3.33%) turns after treatment into (56.67%, 40.00%). Khadirkwath Dhavan is significant than in Kiratatiktakwath Dhavan for Vrana Varna.

➢ **Effect of therapy on Vrana Oshtha-**
➢ No margin even in granulation (0.00%, 16.67%) turns into (36.67%, 53.33%) Regular but inflamed (56.67%, 23.33%) patients seen before treatment which after dhavan with khadira turns into (20.00%, 3.33%). Khadirkwath Dhavan is not significant than in Kiratatiktakwath Dhavan for Vrana Oshtha.

➢ **Effect of therapy on Vrana Strava-**
➢ Frank discharge present, change in dressing pad needed twice daily (83.33%, 6.67%) turns into (10.00%,16 67%). No strava before treatment (0.00%, 43.33%) turns into 60.00%, 53.33%

Khadirkwath Dhavan is significant than in Kiratatiktakwath Dhavan for Vrana Strava

➢ **Effect of therapy on Vrana Akara-**
➢ Day 1st area and depth of wound (3.33%, 3.33%) after dhavan change into (0.00%, 0.00%). $1/4^{th}$ of previous area and depth of wound (60.00%, 53.33%) change into (36.67%,40.00%)
➢ There is no significant difference between effect of Khadirkwath Dhavan and effect of Kiratatiktakwath Dhavan for Vrana Aakara.

➢ **Probable Mode of Action of Devdarvyadi Churna**
➢ The Properties of ingredients of Devdarvyadi Churna most of the drugs are Tikta, katu rasatmaka, ushna viryatmaka and Laghu, Rauksha guna katu vipaka karma of Pathayadi Churna of Tridoshoghna, deepana, pachana, Shothaghna, Shoolaghna, Vatalomahka, Mruduvirechana, krimighna, Vibandhanashaka. Mutrala and Rasayana.
➢ Due to Laghu, Katu rasa, Ushna virya, it dose best Amapachana. It acts as Vatakaphaghna, Shothahara, Anulomaka, Shoolahara and Strotorodhanivarana. By its Kledapachaka and Agnideepana properties, it digests Ama, so helpful in Sampraptibhanga in Amavata and reduces swelling & Stiffness in Amavata. In Amavata vibandha (Constipation) is one of the symptom that relives by Anulomana Property.

CONCLUSION

The effect of Khadirkwath Dhawan (Group A) is significant than Kiratatiktakwath Dhawan(Group B) for subjective criteria such as Vrana Gandha, Vrana Varna, and Vrana Strava of Dushtavrana.The effect of Khadirkwath Dhawan (Group A) is not significant than Kiratatiktakwath Dhawan (Group B) for subjective criteria – Vrana Oshtha of Dushtavrana.

There is no significant difference between the effect of Khadirkwath Dhawan (Group A) and Kiratatiktakwath Dhawan (Group B) for subjective criteria- Vrana Vedana, Vrana Daha, and Vrana Aakara.

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