INTRODUCTION:
The skin is the organ of the body that is readily available from inspections by the eyes & fingers of every living person. It is a link between internal and external environment and is also the seat of complexion, which maintains beauty and personality. It provides individual identity in the society. As being the largest organ of the body and being on the surface, it is directly exposed towards microorganisms. By hampering the beauty of persons, it creates social and psychological impairments. Skin disease is account for a great deal of misery, suffering, incapacity and economic loss.1

All the skin diseases in Ayurveda have been discussed under the broad heading of “Kushtha”. Which are further divided in Mahakushtha & Kshudra Kushtha. Ek-kushtha is considered as kshudra kushtha.2 Amongst all the types of Kushtha, “Eka-kushta” is the most embarrassing one. The modern medicine describes Leprosy with the help of 4 D’s as, Discomfort, Disability, Disfiguration and lastly Death. In case of Psoriasis first 3 D’s are observed. Psoriasis is a chronic, non infectious inflammatory dermatosis characterized by well-demarcated erythematous plaques topped by silvery scales. Ayurveda texts do not give a direct reference towards a single disease which can be compared with the modern day “Psoriasis”. According to Ayurveda, in Ekkushtha round shaped and erythematous lesions +silvery white scale are found over large area of body. Treatment of Ekkushtha is comprised of Shodhana and Shamana type of treatment, and Shodhana is more important treatment measure in the disease.

Apart from Madanaphala, five other drugs and in total 355 formulations described in classics, one of them is KRUTAVEDHANA KALPA, which indicates towards the selection of different drugs & formulations in accordance to the Dosa, Dushya and diseases. Apart from Yamaka Prabhav in general the drug has Specific indication for some diseases and disturbed Dosa condition. Krutavedhana is especially mentioned for Gadha Doshayukta condition like Kushtha, Pandu, Pliha Roga, Shapha, GaraVisha etc.

Aims and Objectives
1. Standardization of Vamana Karma.
2. To assess the efficacy of vamana Karma in the management of Ek-Kushta.

Materials and Methods
1. Clinical: by analyzing the data from the results obtained by clinical study.

Criteria for patient selection:
Patients with classical sign & symptoms of the Ek-Kushta, according to Ayurvedic classics as well as modern science were selected. It was selected from the O.P.D. & I.P.D. of Govt. Akhandanand Ayurveda College – Hospital.

Total 24 patients were selected for present study and were divided into two groups.

The research work has been carried out in two groups as follow:
Group – A In this Group Vamana Karma was performed by Krutavedhana and Pappalyadi Ghrita was used for snehana. After Sansarjana Krama Pippalyadi vati was given for 26 days.

Group – B In this Group Vamana Karma was performed by Krutavedhana and Go- Ghrita was used as snehana. After Sansarjana Krama placebo tablet is given for 26 days.

Criteria for assessment of overall treatment:
1. Complete Remission: 100% relief in the signs and symptoms with plain skin and significant changes in color of the affected skin lesion towards normal.
2. Marked Improvement: More than 75% relief in the signs and symptoms were recorded as marked improvement with improvement in pigmentation and skin thickening.
3. Moderate improvement: 50-74% relief in the signs and symptoms were considered as moderate improvement in pigmentation and skin thickening.
4. Mild Improvement: Patients showing results between 25-50% in signs and symptoms with slight improvement in pigmentation and skin thickening.
5. No Effect: Result below 25% was considered as no change.

OBSERVATIONS:
1) Higher incidence of Eka-kushta was reported in age group of 31-40 years and, in these 24 patients, maximum belonged to Male sex (83.33%), Hindu religion (87.5%), Secondary Educated i.e. 5th-10th (16.67%) Urban habitat (55%), Married (83.33%) and in Service (66.66%) each, with Lower Middle class status (50%).
2) In these 24 patients, majority were addicted to Tobacco chewing (33.33%) and Tea (66.67%) with depressive and anxiety Emotional status (29.17%each)
3) Dietary habits: Maximum patients were Vegetarian (70.83%). Majorly of them preferred Madhura and Lovana rasa (58.33%) which is major reason to worsen the skin condition. Maximum patients had Guru-Snigdha pradhan aahar (54.17% and 50% each) with Vishamshana habit 50% though among these 54.17% patients
had Mandagni. Here 58.33% patients had Kruka Kostha (dominance of vata)

4) Majority of patients i.e. 100% had Regular bathing, among which 41.67% used cold water. Disturbed sleep was noticed in 66.67% patients.

5) Vyadhi- In 66.67% patients gradually onset of the disease was noticed, 85% had Chronic duration. This chronicity was maximum i.e. 41.67% in between 6-10 years. Here course of the disease was continuous in 79.17% patients, among them 100% had already taken Allopathy medicine. Family history of psoriasis was only recorded in 10% patients.

6) Nidan seven: Maximum patients i.e. 80% used to have khichadi with milk and 45.83% used shitala jala seven after atopadi shram kriya and 54.17% divaswapa.

7) Cardinal symptoms: like scaling, itching, ruksha and auspitz’s signs were recorded in all 24 patients i.e.66.67%. Involvement of scalp–upper extremity, chest –lower extremity, back, were seen in70.83% of patients. Among these 24 patients 75% of patients had plaque type of psoriasis with maximum aggravation in shishir season i.e.29.17%

8) Snehana- Majority of patients had snehanapa for 7 days i.e. 280 mlamong which 45% had snehanapa matra between 30-35 ml on 1st day, 40% had snehanapa matra between 300-350 ml on last day. Among these samyaka snigdha lakshanas were found in 83.33% of patients.

9) Vaman- Out of 24 patients, in 37.5% of patients 8 varman vega were seen. With pravar shuddhi in 66.67% patients, in 75% of patients samsaran jrama was advised for 7 days.

- In group B for 50% patient, Average Quantity of Khrutvedhana seed churna was 8.50 gms. For 33.33% patient, Average Quantity of Khrutvedhana seed churna was 6.00gms. For 16.67% patient, Average Quantity of Khrutvedhana seed churna was 7.50gms.

- It was observed in patients of group A that after administration of Vamana Yoga, Nausea (i.e. Hrillasha) was reported earlier than other within an average time period of 1.50 minutes. Then Salivation (i.e. Asya Sravana) was started within an average period of 20 minutes. Heaviness & Discomfort of abdomen (i.e. Lomaharsa) was complained next within an average duration of 10.00minutes. Then Sweating (i.e. Sweda Pradurbhava) on fore head was marked within an average period of 12.00 minutes, whereas Pilling of hair (i.e. Lomaharsa) was observed later within an average duration of 25.00 minutes.

- The process of Vamana was completed in 1 patients of groupA & groupB in 65 minutes. 60 minutes was taken to finish the whole procedure 6 patients of group A & 9 patients of group B. In 5 patients of group A took 57minutes to finish the whole procedure 2 patients of group A took 75 minutes to finish the whole procedure.

The initially average value of blood pressure in 05 patients of group A was 140/90 mm of Hg, which further slowly came down as the process came to end showing the average value of 130/ 86 mm of Hg. average value of blood pressure in 04 patients of group A was 130/88 mm of Hg, which further slowly came down as the process came to end showing the average value of 120/ 82 mm of Hg. In group B, changes was observed showing the average value 120/80 mm of Hg before Vamana in 7 patients & 110/86 mm of Hg .In group B, average value 130/80 mm of Hg before Vamana in 4 patients & 126/76 mm of Hg after Vamana was noted.

In all 24 patient tachycardia was found ,in 5 patient of group A before Vamana, Karma pulse was 80/min it was increased during Vamana and after Vamana it was found 88/min, in 3 patient of group A before Vamana, Karma pulse was 84/min it was increased during Vamana and after Vamana, it was found 92/min, in 4 patient of group A before Vamana, Karma pulse was 88/min it was increased during Vamana and after Vamana it was found 92/min, in 2 patient of group B before Vamana, Karma pulse was 76/min it was increased during Vamana and after Vamana it was found 88/min, in 6 patient of group B before Vamana, Karma pulse was 88/min it was increased during Vamana and after Vamana it was found 96/min, in 4 patient of group B before Vamana, Karma pulse was 72/min it was increased during Vamana and after Vamana it was found 84/min.

There was mild changes found in respiratory rate in 5 patient of Group A before Vamana, Karma respiratory rate was 20/min and after Vamana, Karma it was 24/min , in 3 patient of Group A before Vamana, Karma respiratory rate was 21/min and after Vamana, Karma it was 24/min, in 4 patient of Group A before Vamana, Karma respiratory rate was 21/min and after it was 24/min , in 5 patient of Group B before Vamana, Karma respiratory rate was 21/min and after Vamana, Karma it was 25/min, in 6 patient of Group B after Vamana, Karma respiratory rate is 21/min and after Vamana, Karma it was 25/min, in 4 patient of Group B before Vamana, Karma respiratory rate was 21/min and after Vamana, Karma it was 25/min.

To comprehend the quantity of drug that was ingested, volume of the same were measured before commencing & after completion of the procedure. So the difference between them provided us the amount of the medicine that was ingested i.e. Drug Input or Volume Input. After completion of the procedure, the vomitus was measured by volume i.e. Drug Output. This measurement helped us to estimate how much quantity of the medicine came out along with the vitiated humours. In 2 patient of Group A input was 8500 ml and output was 8700 ml and difference between input and output was 200 ml, In 4 patient input of Group A was 5600 ml and output was 5800 ml and difference between input and output was 200 ml, In 6 patient of Group A input was 6100 ml and output was 6250 ml and difference between input and output was 150 ml, In 5 patient of Group B input was 4000 ml and output was 4250 ml and difference between input and output was 250 ml, In 3 patient of Group B input was 6000 ml and output was 6200 ml and difference between input and output was 200 ml, In 4 patient of Group B input was 7300 ml and output was 7500 ml and difference between input and output was 200 ml.

A lot of alertness, physical, mental & analyzing strength is needed for conducting the process of Vamana. It is the skill of the physician in deciding at which phase Vamana should be ceased. Judgement of the humours remained inside; strength of the patient, condition of the patient & Antiki Lakshanas etc. become the key factors in making the decision. To end the Vamana, certain signs & symptoms (Antiki Lakshanas) are necessary to check carefully.

In the present study, more emphasis was given upon to get the symptoms from a Patient on its own. No leading questions were asked suggesting the specific answers. The signs & the symptoms were reported abruptly when the decision to cease the process of Vamana was taken over. So Antiki Lakshanas mentioned in classics plays major role here to decide it.

When Pitta started to ooze out, the taste in the mouth i.e. Rasa Pratiti also showed some changes in both groups. Maximum i.e. 41.67 % patients in group A & 33.33% in group B tasted bitterness (i.e. Tikta) while only 16.67% patients in group B & 8.33% patients in group B tasted bitterness (i.e. Tikta & Katusyata), 8.33% persons in group A & 16.67% in group B ended Vamana with only pungent (Katusyata) taste, while 8.33% patients completed the process with sweetening & pungent taste in mouth (i.e. Katu & Madhurasyata) in group A and 16.67% in group B finished it with salty & pungent (i.e. Katu & Lavanasyata) taste.

Likewise at that time when asking about Udara Stithi, maximum i.e. 83.33% Patients in group A & 75% in group B felt lightness in abdomen (i.e. Udara Laghava), while only 16.67% patients in group A & 25 % of group-B told about the heaviness of abdomen (i.e.
Burning sensation in throat (Kantha Daha) is the symptom sensed by 58.33% Patients in group A & 41.67% in group B. 25% patients complained about pain in throat (Vedana). In group A & 16.67% in group B. Complained about stickiness of mucus in throat (Udara Gaurava). Cough was also felt by 16.67% patients of group A & 41.67% of group B after completion of Vamana. Almost all patients each had secretions from the nostrils & secretions from the eyes during the process & also at the end of the process.

Likely 16.67% patients in group A ended up Vamana with continue clear & tasteless belching (i.e. Pravara Udgar), while 83.33% of group A & 16.67% of group B expelled less air in form of belching (i.e. Avara Udgar).

Nausea tendency (Chhardi Iccho) in mild form was still persisted in about 25% persons of group A & 16.67% of group B, whereas 16.67% patients of group A & 25% of group B completed their Vamana with less nauseated condition.

Severe sweating was seen in 33.33% patients of group A & group-B while mild perspiration was detected in 41.67 of group A & 16.67 group B in the last phase of Vamana. The appearance of "Pitta" (only Pitta) was observed in vomitus, when the process reached a climax, in 58.33% patients in group A & 66.67% in group B.

After completion of Vamana 75% patients of group A & 66.67% of group B realized lightness in chest, lightness in sides, lightness in whole body (i.e. Gatra Laghavo) with increase in freshness (i.e. Indriya Prasannata).

The maximum patients i.e. 100% of group A & 83.33% of group B were suffered from Daubalaya, while 83.33% persons of group A & 83.33% of group B complained Alosya. Likewise Loose motions (Drava Mala Pravritti) were observed in 33.33% peoples of group A & 25% of group B. 58.33% persons of group A & 41.67% of group B complained Daha in throat. Some bouts of Vomiting (Chhardi) were also reported having that day after Vamana in some patients i.e. 33.33% of group B & 41.67% of group A.

Along with these symptoms, others like Pain in abdomen (Udara Shula) (By 25% of group A & 33.33% of group B), Body ache (Angamarda) (By 8.33% of group A & 00% of group B), Heavyness of abdomen (Udara Gaurava) (By 16.67% of group A & 25% of group B). Likely some peoples i.e. 8.33% in group A exhibited belching (Udgar) on that day.

When patients were distributed according to Samsarjana Krama they followed, it was observed that 16.67% persons of group A followed Samsarjana Krama for 3 days & 8.33% of Group-B followed Samsarjana Krama for 3 days. 33.33% patients of group A & 8.33% of Group B for 5 days, while the rest of the patients i.e. 50% peoples of group A & 83.33% of Group B followed it for 7 days.

In 70.83% Snigdha Twak, 91.67% Asamhit Varcha Lakshana were seen. In 87.5% Purusha Snigdhatwas found, in 75%, Adhastad Sneha Darshana and Vatsanuloman were in 75%, Deepagni in 79.17%, Shaitihiliya. 62.5% and 58.33% showed Krama. Snehdosegwa was observed in 54.17%, 45.83% in Snigdha Gatra, 50% in showed Gani 79.17% of patients showed Laghuta after Vamana. 70.83% of patients showed Daubalaya. 66.67% Anati mahatiyatha and 58.33% showed Murtha shuddhi, Indriya Shuddhi, Parshwa Shuddhi, Hrit Shuddhi.

Pravara shuddhi was found in 66.67% patients and Madhyama Shuddhi was found in 20.83 % Avara Shuddhi was found In the remaining 12.5%.

Effect on Aswedan, in Group A was 81.87% after the completion of whole therapy. In Group B was 67.56% after the completion of treatment. In group A, for Mahavastu lakshana was 78.94% after the 6 weeks follow up. In Group B was 50% after the whole therapy.

In Matsu-shakkitak lakshanas which was 61.11 % after the whole therapy. In Group A i.e Matsya-shakkitak lakshanas which was 52 % after the whole therapy in GroupB. In Group A Effect on Kanu was 86.06% after the whole therapy, in Group B was 73.80% after the whole therapy. In group B for Daha symptom 66.67 % relief was observed after whole therapy.

Effect on Rukshata in Group A was noticed as 68.42% relief after the completion of therapy. In Group B, 57.14% relief after the completion of treatment was observed.

In Group A gave 50% relief for the symptom Vedana after the whole therapy. In Group B 41.37% relief was noticed after the whole therapy too.

In Group A, 66.67% relief in the sign Varnana was observed after the (vaman, samsarjana and follow-up) whole treatment. In case of Group B, this result was 10.52% after the completion of whole therapy.

Discussion:
Karma Review:
The Karma review of the process, Vamana Karma, Vyapada and Mechanism of Vamana process. General review of the process comprises of historical review of Vamana process, etymology and definition of Vamana and indications-contraindications explained for Vamana. This is supported by a plenty of references regarding Vamana in various contexts obtained from several texts.

Vamana Karma consists of three major divisions as Purvakarma, Pradhankanarma and Paschatakarma. Purvakarma deals with the Sambhara Samagraha, selection & examination of the patient, Deepana-Pacana, Snehana, Abhyanga-Svedana, Manasopacara (counseling) and Dietetic regimen. Dietetic regimen is further planned on the previous night of Vamana & just before the process of Vamana Karma. Pradhankanarma consists of administration of Vamaka Yoga, observations during Vamana & four criteria for assessment of Vamana Karma. Each criterion is discussed in detail with assessment, importance and explanation. Paschata Karma contains Dhunapana, Pariharya Visaya and Samsarjana Karma.

Chapter regarding "Vyapada" contains the definition of Vyapada, several factors leading to Vyapada, types of Vyapada, Atyoga, Ayoga and major ten complications explained by Charaka in detail with the list of several complications explained by various authors.

Drug Review:
For the consideration to this point, the study was planned to compare the effect of Vamana Karma. In this study Vamana was done by the traditional method with the use of Krutavedhana as the Vamaka Dravya and after the completion of Shodhana, Shamana drug (Pippalyadi vati) was given in group-A for 26 days.

In this study research work was carried out in two groups viz. group-A and group-B to assess the efficacy of Vamana.

Efficacy of Krutavedhana In The Process Of Vamana Karma:
Vamana Karma is explained as the Shodhan process and in the description of VAmaka drug Acharya mentioned drug having the VAmaka property is Agni and Vayu Mahabhu dominant. So, therefore here below Raspanchaka of drug Krutavedhana is mentioned. Raspanchak of Krutavedhana:

Pras : Katu
Guna : Tikshana, suksha,
Vritya : Ushna
Prabhaava : Udbhayatabhaghar

Action through Rasa:
Katu Rasa of Krutavedhana has dominancy of Agni and Vayu Mahabhum, therefore we can say that through the action of Rasa it plays important role in the Vamana process.

**Action by Guna:**
Krutvedhan has Tikshan & Rukshna Guna, commentator Arundatt mentioned that Shodhane Karmane Shakti Sa Tikshna. So therefore it will take part through its Guna in vamana Karma.

**Action by Virya:**
It has Ushna Virya property so it again helps in Vamana Karma. So we can say that Krutvedhana acts by its Raspanchak and by observing the Vyadhiviprit effect of drug Krutavedhana it is useful in disease which is occurs by Dosha situated in deep Dhatu of the body. Hence we knows that Kustha is a disease which is deeply situated in body and that’s way Aacharya Charak has described Kustha as a disease which stands in body for long time among all other disease.

So by Raspanchak, Dashviprit and Vyadhiviprit effect of Krutavedhana we can conclude the probable mode of action and efficacy of Krutavedhana.

**OVERALL EFFECT OF TOTAL THERAPY:**
- Nobody got completely result.
- Marked improvement was noted in 25% patients of group-A and 00% patients of group-B.
- Moderate improvement was observed in 75% patient in group-A where 83.33% shows improved effective result in group-B.
- Mild improvement was observed in 00% patients in group-A where 16.67% shows improved effective result in group-B.
- Unchanged was noted in 00% patients of only in group-A and group-B.

The effect of Vamana Karma was found locally and systematically. In the Shodhana procedure the morbid humours—the main causative factor are expelled out from body, so that the group-A shows more improvement.

**CONCLUSION:**
Ekkushta in modern parlance has similarity with Psoriasis. Some researchers also correlate Psoriasis with Sidhma or Kitibha. Ekkushta is a Vatakapha dominant disease in which Vaman Karma treatment gives more efficient results.

**References:**