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A comprehensive guide to *Andopanaha* - A modified *Swedana* procedure that can be utilized in *Panchakarma* in various forms

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ABSTRACT

Introduction: The *Upanaha Sweda* and *Anda Pinda Sweda* have wide levels of application in Ayurveda practice. *Upanaha Sweda* is mentioned by Acharya Charaka in *Niragni Sweda* type. Whereas, other classics like *Susruta Samhita* and *Astanga Hrudaya* mention it in the *Sagni Sweda* variety. So, combining both the views of *Acharyas*, we can interpret that there are 2 types of *Upanaha* i.e., *Sagni Upanaha* & *Niragni Upanaha*. *Anda Pinda Sweda* is a type of *Snigdha Sankara Sweda*. These two classically mentioned therapies are less utilized in many institutions due to various reasons. Here in this study, we are trying to sort out the practical difficulties and find the possible modifications of these classical procedures for their utilization in the modern era. **Methodology:** With the main intention of developing a *Snigdha Swedana* procedure having both the benefits of *Anda Pinda Sweda* and *Upanaha Sweda*, the *Andopanaha* is designed. Here in this new method, the *Dhanya Dravya* is replaced by the (*Kukkuta Anda*) egg white, which is also a good binding agent. **Observations:** Compared to the *Anda Pinda Sweda* procedure the contact of Egg proteins with the skin is more in the *Andopanaha* procedure. Which helps in more analgesic effects and anti-inflammatory effects of the egg proteins. **Discussion:** The paper is prepared by authors with the intention that procedures and standards of care must be updated with modern tools and technologies without violating the basic principles of Ayurveda. If the old procedures need any changes according to the modern era they must be followed for their propagation in the public.

Key words: *Panchakarma, Swedana, Upanaha, Anda Pinda Sweda, Modified Panchakarma, Ayurveda Patch, Ayurveda Bandage.*

INTRODUCTION

Sankara Sweda and *Upanaha Sweda* are two types of *Swedana* modalities that are being practiced by various Ayurvedic physicians for varying disorders. Acharya

Charaka mentioned *Sweda* can be broadly classified into *Sagni Sweda* and *Niragni Sweda*.^[1] *Sankara Sweda* is the first and foremost *Sweda* type of *Sagni Sweda* by Acharya Charaka.^[2] So, it must have special importance in the management of various diseases. *Sankara Sweda* again is of many types. Based on its properties generally, it can be further broadly classified into *Snigdha Sankara Sweda* and *Rooksha Sankara Sweda*. *Anda Pinda Sweda* is a type of *Snigdha Sankara Sweda*.

Upanaha is mentioned by Acharya Charaka in *Niragni Sweda* type.^[3] Whereas, the other classics like *Susruta Samhita*, *Astanga Hrudaya*, and *Ashtanga Sangraha* are mentioning it in the *Sagni Sweda* variety.^[4-6] So, combining both the views of *Acharyas*, we can interpret that there are 2 types of *Upanaha* i.e., *Sagni Upanaha* & *Niragni Upanaha*. In *Sagni Upanaha*, the

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mixture will be heated or cooked in the fire before application to produce the *Swedana Karma*. But, in *Niragni Upanaha*, the mixture as such will be applied to the body with a thick covering of *Vatahara Patra* as well as *Bandhana Samagri*. The combination of *Ushna Veerya Dravya* will be producing the heat inside the *Upanaha*. The *Vatahara Patra* will do the retention of the heat emitted by the body inside the *Upanaha* bandage.

Both, the *Upanaha* and *Andapinda Sweda* have wide levels of application. Even though both therapies have enough *Sneha* in them and are mentioned for the *Snigdha Swedana* procedure, they can be used for the *Ruksha - Snigdha Swedana* procedure by reducing the amount of *Sneha* used for the preparation. These two classically mentioned therapies are less utilized in many institutions due to various reasons. Here in this study, we are trying the sort out the practical difficulties and find the possible modifications of these classical procedures for their utilization in the modern era.

Parts of the Upanaha mixture

Different types of materials or drugs used in *Upanaha* can be classified into *Gandha Dravya* or *Aushadha Dravya*, *Dhanya Dravya*, *Amla Dravya*, *Lavana*, *Sneha Dravya*, *Bandhana Samagri*, etc. The list of *Dravya* parts in the *Upanaha*, their importance, and the commonly used drugs in each part are explained in the table below (Table 01)

Table 1: Table showing the parts of a classical Upanaha, its importance, and generally used drugs in each part.

SN	Parts of the Upanaha	Importance	Commonly Used Drugs
1.	<i>Upanaha Choorna</i>	They are also known as <i>Aushadha Dravya</i> or <i>Gandha Dravya</i> . It is the main medicinal part. It does <i>Samana</i> of the doshas vitiated and reduces the signs	Various powders of single drugs like <i>Rasna</i> , <i>Jatamamsi</i> , <i>Shatapushpa</i> , <i>Devadaru</i> , <i>Vacha</i> , etc., as well as combinations of these drugs and

		and symptoms of the affected diseases. It contains many volatile oils. It can be chosen according to the disease.	<i>Yogas</i> like <i>Kolakulathathi</i> , <i>Kottamchukkadi</i> , <i>Jadamayadi</i> , <i>Gruhadhoomadi Choorna</i> , etc.
2.	<i>Dhanya Choorna</i>	They are also known as <i>Bandhana Dravya</i> . It is the binding agent in the preparation that helps to content to stick together.	Wheat Flour, Black gram flour, Rice flour, Atta, Maida, etc.
3.	<i>Amla Dravya</i>	It also has penetrating properties and helps the entire medicine to go deeper into the tissues to get the desired effect.	Lemon juice, Buttermilk, Curd, Fermented preparations like <i>Asava</i> , <i>Arishta</i> , etc.
4.	<i>Lavana</i>	It also has penetrating properties and helps the entire medicine to go deeper into the tissues to get the desired effect. It also does <i>Kapha Vilayana</i> and <i>Kapha Chedana</i> .	<i>Saidhava Lavana</i> (Rock salt)
5.	<i>Sneha Dravya</i>	Medicated oils, can be added according to the condition of the patient.	Various <i>Thaila Yogas</i> like <i>Sahacharadi Thala</i> , <i>Kottam Chukkadi Thaila</i> , <i>Prasaranyadi Thaila</i> , <i>Ksheerabala Thaila</i> , <i>Dhanwantaram Thaila</i> , <i>Bala Thaila</i> , etc.
6.	<i>Vatahara Patra</i>	A part along with the <i>Bandhana Samagri</i> , a type of bad conductor of heat. It helps to retain the heat inside the <i>Upanaha</i> .	Various big leaves like <i>Kadali Patra</i> (Banana leaves), <i>Eranda Patra</i> (Castor leaves), <i>Arka Patra</i> (Calotropis leaves), etc.

7.	<i>Bandhana Samagri</i>	Thick bandaging material which also allows the retention of heat inside gives immobilization, as well as avoids leakage of the medicament inside	Cotton, Wool, Bandage cloth, etc.
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AIM

The main aim of this study is to establish the need for and clinical possibilities of a new *Swedana* modality called *Andopanaha* in the practice of *Swedana karma* in Panchakarma.

OBJECTIVES

1. To check the presence of any limitations in the current practice of the classical *Anada Pinda Sweda* and *Upanaha Sweda*.
2. Establish the need for a modification and evaluate the modified procedure.
3. Further scope in the modified procedure with modern technologies.

METHODOLOGY

To develop a new procedure in the *Swedana Karma*, the previous classical methods and their principles must be considered initially. The contents or the materials required for both the *Anda Pinda Sweda* and *Upanaha* must be analysed. Since both the *Swedana* procedures are mentioned in the *Snigdha Sweda* variety, the conditions or indications of both procedures are expected to have some similarities. The practical limitations and cost of raw materials also need to be considered.

Limitations or common practical difficulties in the utilisation of *Anda Pinda Sweda*

- **Smell issue during the preparation as well as procedure**

The smell of the processing of *Kukkuta Anda* during preparation as well as while conducting the procedure is very high. Some patients as well as staff will not be able to bear the continuous smell inside the Panchakarma unit. Since the Panchakarma units will be a closed setup without direct exposure to wind and

breeze the smell resides inside the theatre for a long time.

If the preparation is done with boiled egg the smell produced during the preparation of *Pottali* can be reduced but a certain amount of smell will reappear again during reheating the *Pottali* during the procedure.

- **More eggs are required to make one *Pottali***

Single *Pottali* for an *Anda Pinda Sweda* procedure requires a minimum of 6 eggs. Mostly *Anda Pinda Sweda Pottalis* are not reused. So, to complete *Anda Pinda Swedana* for 7 days it approximately required 42 eggs. The eggs need to be properly stored and need to be used as fresh. The storage of a large number of eggs will be an issue for the practitioners.

- **Less time of contact and less absorption**

Compared to *Upanaha* the time of contact between the body and the procedure is very less. It is continuously stocked and moved during the procedure and the procedure will be completed usually within 40-45 minutes.

- **Heated (Boiled or fried) eggs are used**

The eggs are either boiled or fried to make the *Pottali*. The absorption of nutrients from a well-cooked egg is very limited through this external application compared to partially or uncooked eggs. Moreover, while completely cooking the egg, it loses many vitamins including Vitamin A & D and many anti-oxidants in it.

- **Expert manpower is required for preparation as well as for application.**

Preparation of the *Pottali* as well as the entire procedure manpower for about a minimum of 1 hour. The person should be well trained for maximum care to the patient.

Limitations or practical difficulties due to *Dhanya Dravya* as a binding agent in the Utilisation of the *Upanaha Sweda*

- **Less suitable in *Anagneya form***

The binding property of *Dhanya Dravya* is very good when it is heated or half-cooked. So, in *Agneya*

Upanaha, where the entire mixture is prepared with fire involvement the mixture becomes stickier to the body. But, in the case of the *Anagneya* variety of *Upanaha*, the mixture is not heated so that the sticky property of *Dhanya Dravya* is comparatively less and becomes dry detached from the body after a certain time of application.

- **Makes the preparation bulkier**

The *Dhanya Dravya* along with the other parts of the *Upanaha* becomes more heavy and thicker. The single joint requires a minimum of 25-30 g each of *Dhanya Dravya* and *Aushadha Dravya*. 10-20 g of *Lavana*, 10-20 ml of each of *Sneha* and *Amla Dravya*, 1 layer of *Vatahara Patra*, and a thick layer of cloth or bandaging material. The mixture becomes altogether bulky and difficult for a person to do at least his daily activities.

- **More time for mixture setting**

Mixture setting or drying still requires approximately 30 minutes after application, which may vary based on the area and humidity.

The New Methodology of *Andopanaha*: A New Way of Thinking

Due to the existing limitations mentioned above the usage of the classical *Swedana* methods like *Anda Pinda Sweda* and *Upanaha Sweda* is not completely utilized in most of the institutions or clinics. Even after seeing the compatibility or need of such procedures most of the physicians rely on other modalities in their practice. Sometimes even the patient may request to change the procedure due to various practical difficulties. With the main intention of developing a *Snigdha Swedana* procedure having both the benefits of *Anda Pinda Sweda* and *Upanaha Sweda*, the *Andopanaha* is designed. To some extent, it is believed to have a role in reducing the bulk of *Upanaha Sweda* and smell issues during the procedure of *Anda Pinda Sweda*. Here in this new method, the *Dhanya Dravya* is replaced by the (*Kukkuta Anda*) egg white, which is also a good binding agent. Materials required in the proposed procedure of *Andopanaha* and its comparison with Classical *Upanaha* are shown in Table 02.

Table 2: Table showing the methodology of *Andopanaha* and its similarity and dissimilarity with the parts of a classical *Upanaha*.

SN	Parts of the <i>Upanaha</i>	Similarity	Parts of the <i>Andopanaha</i>
1.	<i>Upanaha Choorna</i>	√	<i>Upanaha Choorna</i>
2.	<i>Dhanya Choorna</i>	×	<i>Kukkuta Anda</i> (Egg white)
3.	<i>Amla Dravya</i>	√	<i>Amla Dravya</i>
4.	<i>Lavana</i>	√	<i>Lavana</i>
5.	<i>Sneha Dravya</i>	√	<i>Sneha Dravya</i>
6.	<i>Vatahara Patra</i>	√	<i>Vatahara Patra</i>
7.	<i>Bandhana Samagri</i>	√	<i>Bandhana Samagri</i>

Comparison of the properties of commonly used *Dhanyas* in *Upanaha* and *Kukkuta Anda* mentioned in Ayurveda Classics

Commonly used *Dhanya Dravyas* that are used as the binding agent include rice flour, wheat flour, black gram powder, sesame flour, etc. Even though the phytochemical constituents of each *Dravya* vary, according to Ayurveda there are certain common properties of each *Dhanya Dravya*. Also, there are certain comparable properties in *Kukkuta Anda* with the *Dhanya Varga*. That may be the reason why Acharya Pandit Kaiyadeva mentioned *Kukkuta Anda* in *Dhanya Varga Adhyaya* itself in his book *Kaiyadeva Nighantu*. The comparison of the properties of commonly used *Dhanyas* in *Upanaha* and *Kukkuta Anda* according to various Ayurveda classics is shown in Table 03.

Table 3: Table showing the comparison of properties of commonly used *Dhanyas* in *Upanaha* and *Kukkuta Anda* mentioned in Ayurveda classics^[7-13]

SN	<i>Dravya</i>	Properties	<i>Doshagnata</i>
1.	<i>Shashtika Shali</i>	<i>Snigdha, Grahi, Laghu, Madhura, Sthira, Hima, etc.</i>	<i>Tridosha Hara</i>

2.	Yava	Ruksha, Sheeta, Guru, Madhura, Sara, Vit Janana, Vrushya, Sthairyakrit, Mutra Roga Hara, Medohara, Uristambha Hara, Twak Roga Hara	Vata Krit Pitta Kapha Hara
3.	Tila	Ushna, Twachya, Hima Sparsha, Keshya, Balya, Guru, Katu Paka, Medha Krit, Agni Krit, etc.	Kapha Pitta Krit Vata Hara
4.	Masha	Snigdha, Bala Kara, Sara, Guru, Ushna, Madhura, Shukrala, etc.	Kapha Pitta Krit Vata Hara
5.	Godhuma	Vrishya, Sheeta, Guru, Snigdha, Jeevana, Sandhanakari, Madhura, Godhuma, Sthairyakrit, Sara, etc.	Vata Pitta Hara
6.	Kukkuta Anda	Agni Krit, Brimhana, Balavardhana, Ruchya, Kantikara, Vrishya, Sthoulya Krit, etc.	Vata Hara

OBSERVATIONS AND RESULTS

Advantages in the Utilisation of *Andopanaha Sweda* & Benefits of *Andopanaha*

- Can retain the medicaments up to 12 hours on the body surface providing more contact time support and absorption.

Compared to the *Anda Pinda Sweda* procedure the contact of Egg proteins with the skin is more in the *Andopanaha* procedure. Which helps is more analgesic effects and anti-inflammatory effects of the egg proteins.

- Less irritant compared to *Dhanya Dravya* as the binding agent.

The physical characteristic of egg white in the form of a binding agent is more suitable than powders of cereals. It will hold the mixture more tightly than the *Dhanya Dravya*. Also, it will remain more adherent to the skin after drying thereby will not produce much irritation compared to the latter. The various contents of the egg are also good for the skin. Since the *Upanaha*

needs to be retained more the *Andopanaha* procedure will be more suitable for the skin also.

- More strengthening than compared to *Dhanya Dravya*

Compared to the powders of various kinds of cereal as well as pulses that can be utilized in *Upanaha*, the egg is found to be the richest source of nourishment and strengthening agent.

Limitations of the *Andopanaha*

- Mixture setting or drying still requires approximately 15-20 minutes after application, which may vary based on the area and humidity.
- Smell issues during preparation persist in a mild form

The prepared mixture will possess the smell of egg even though many *Gandha Dravyas* are present in the mixture. However, after proper bandaging, the smell can be controlled.

- Cannot be stored much for longer use.

The mixture needs to be prepared fresh. Since the egg makes the mixture hardened even in cold form, the mixture needs to be prepared just before application and cannot be stored even in refrigerated form.

- Required fresh egg storage. Still, the storage of eggs is required. But compared to the number of eggs required for *Andapinda Sweda*, a minimum of 2 eggs will be enough for a single joint procedure of *Andopanaha*.

Further Scopes in the *Andopanaha* in the present era

While we are discussing the development of a new modified procedure, it needs to be the most suitable form for the modern era. We can incorporate the advancement of technology and modern tools to optimize it for maximum utilization. The following are the further scopes of *Andopanaha*:

- Andopanaha* in the form of non-heating direct apply Ayurveda Patch
- Andopanaha* in the form of heat and apply Ayurveda Patch

- *Andopanaha* medicaments in the form of Ointment
- *Andopanaha* medicaments in the form of Heating pads.

An optimized procedure of *Andopanaha* in the form of an Ayurveda Patch

The simplest and most convenient form of *Andopanaha* will be the Ayurveda Patch. The pictorial representation of *Andopanaha* in the form of an Ayurveda Patch is shown in Figure 01.

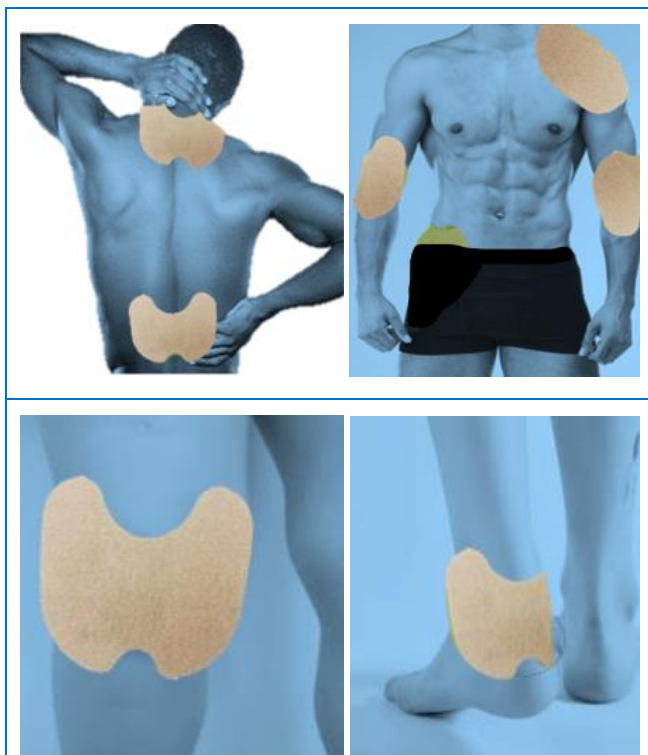


Figure 1: Image showing the various levels of application of Andopana in the form of an Ayurveda Patch

Major advantages of making *Andopanaha* in the form of an Ayurveda Patch

- *Andopanaha* Ayurvedic Patch can be used easily in all major joints of the body.
- Even more than one joint can be utilized at a time by an Ayurveda patch without affecting daily activities, which is required in the current scenario.
- Gives complete support for the care requirement period along with medicinal effect.

- Smell issues and storage issues can be corrected which utilizing a patch.
- The patch does not require a drying period to avoid leakage.
- Time-efficient and manpower-efficient protocol. Once the patch is designed, utilization is quite easy. Does not require much manpower or supervision. Even the patient can apply the patch after a single-time demonstration of proper application.

The pictorial representation of the major areas or joints where *Andopanaha* Patch utilization is possible is shown in Figure 02.

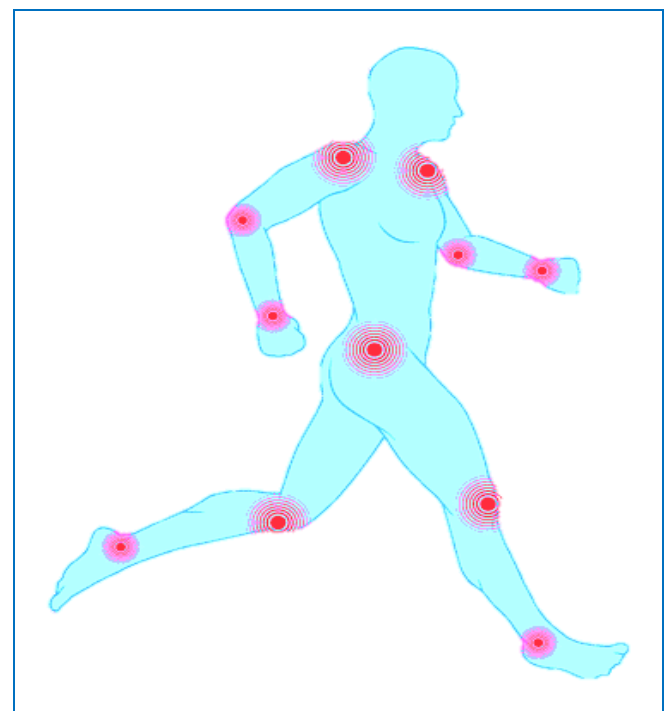


Figure 2: Figure showing the pictorial representation of the major joints that can be utilized by the *Andopanaha* Ayurveda patch without affecting daily activities.

DISCUSSION

Nowadays, eggs are used in various industries including medical, pharmaceutical, nutritional, and biotechnological industries. It is the cheapest source of Proteins, as well as various Vitamins and minerals. Nutritionally egg is very important in humans. For example, the egg contains Choline, which is a very essential nutrient that is required for the synthesis of

various phospholipids that are essential for all the membranes and for the development and normal functioning of various body structures. Dietary choline is also proven to enhance skin immunity and elasticity improvement.^[14] Also, the lysozyme, G2 and G3 globulins, ova macroglobulin, immunoglobulin Y, and various other antimicrobial compounds in eggs could induce immunogenicity and antimicrobial properties. The topical application of Tryptophan ointment is proven to improve skin health and produce healing to burn wounds and reduction in oedema in mice by increasing re-epithelialization, cell proliferation, and neovascularization process. Tryptophan is a vital compound and essential amino acid present in egg whites.^[15] A clinical trial conducted by the Faculties of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran states that Egg yolk is more efficient than nitro-glycerine in the treatment of acute anal fissures with fewer side effects. The study states that the egg in the form of topical application is an excellent medication for fissures with significant anti-inflammatory and analgesic properties.^[16]

There are many comparative studies ongoing in various fields on natural binding agents and their ratios. The grain flour and egg white powders are being cross-examined in various studies. A study conducted by the faculties of University Sains Malaysia concluded glutinous rice flour is more efficient than dried egg white in the fabrication of porous cordierite by gel casting method.^[17] So, the modification of the protocol between natural binders is conducted in various fields all around the world.

While we are discussing the modification of *Dhanya Dravya* with *Kukkuta Anda* in the *Upanaha*, one thing we must remember is that Acharya Kaiyyadeva mentioned *Kukkudanda* in the *Dhanya Varga* chapter itself. Acharya must have mentioned it in the same category because of the similarity of their properties.^[18] So, both Ayurveda and Modern principles support the similarity of the utilization of *Kukkudanda* as a binding agent in *Upanaha*. According to Ayurveda, Chicken eggs are believed to have properties like *Brumhana* (nourishing), *Bala Vardhana* (increases strength), *Kanti Karaka* (improves

complexion and elasticity), and *Sthoulyakrit* (best for gaining muscle bulk).^[9] According to various Ayurveda classics, *Kukkuta Anda* (Chicken egg) has various dosage forms and benefits in the body. Acharya Charaka, Chicken egg can even be utilized in the form of *Yapana Basti Chikitsa* (medicated enema) for the improvement of strength complexion and aphrodisiac activity.^[19] According to Acharya Susruta, even the shell of a chicken egg is useful in curing *Rakta Abhisyanda* (a suppurative disorder of the eye).^[20] Various proteins in egg white show various biological properties like antimicrobial, growth factor binding, cell growth, stimulation of attachments, etc. Also, egg whites have been used in tissue engineering to induce blood vessel formation, etc.^[21] The egg white is being used in bandaging by various traditional systems of medicine. Although egg white has mild allergic responses in some people, no adverse immune reactions have been reported so far.

CONCLUSION

There are many unexplored areas in the guidelines provided by our *Acharyas*. The paper is prepared by authors with the intention that procedures and standards of care must be updated with modern tools and technologies without violating the basic principles of Ayurveda. If the old procedures need any changes according to the modern era they must be followed for their propagation in the public.

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REFERENCES

1. Agnivesha. Charaka Samhita with Ayurveda Dipika Commentary, Choukhamba Sanskrit series. Varanasi. 1994, Sutra sthana, 14th Chapter, Sloka 65.

2. Agnivesha. Charaka Samhita with Ayurveda Dipika Commentary, Choukhamba Sanskrit series. Varanasi. 1994, Sutra sthana, 14th Chapter, Sloka 34-40.
3. Agnivesha. Charaka Samhita with Ayurveda Dipika Commentary, Choukhamba Sanskrit series. Varanasi. 1994, Sutra sthana, 14th Chapter, Sloka 66.
4. Susruta. Susruta Samhita, Chikitsa sthana English translation edited by PriyavratSharma, Chaukhambha visvabharati, Chikitsa sthana, 32nd Chapter, Sloka 3.
5. Vāgbhāṭa. Ashtangahridayam, Sutrasthana, with commentaries sarvangasundara of Arunadatta and Āyurvēda rasayana of Hemadri, Varanasi Chowkhamba Krishnadas academy, Sutra sthana 17th Chapter, Sloka 1.
6. Vriddha Vagbhata, Ashtanga Samgraha with Indu commentary of Sasilekha, edited by Shivprasad Sharma, published by Chaukhambha series, Sutra sthana, 26th Chapter Sloka 1.
7. Vāgbhāṭa. Ashtangahridayam, Sutrasthana, with commentaries sarvangasundara of Arunadatta and Āyurvēda rasayana of Hemadri, Varanasi Chowkhamba Krishnadas academy, Sutra sthana 6th Chapter, Sloka 6.
8. Vāgbhāṭa. Ashtangahridayam, Sutrasthana, with commentaries sarvangasundara of Arunadatta and Āyurvēda rasayana of Hemadri, Varanasi Chowkhamba Krishnadas academy, Sutra sthana 6th Chapter, Sloka 13-14.
9. Vāgbhāṭa. Ashtangahridayam, Sutrasthana, with commentaries sarvangasundara of Arunadatta and Āyurvēda rasayana of Hemadri, Varanasi Chowkhamba Krishnadas academy, Sutra sthana 6th Chapter, Sloka 23.
10. Vāgbhāṭa. Ashtangahridayam, Sutrasthana, with commentaries sarvangasundara of Arunadatta and Āyurvēda rasayana of Hemadri, Varanasi Chowkhamba Krishnadas academy, Sutra sthana 6th Chapter, Sloka 21.
11. Vāgbhāṭa. Ashtangahridayam, Sutrasthana, with commentaries sarvangasundara of Arunadatta and Āyurvēda rasayana of Hemadri, Varanasi Chowkhamba Krishnadas academy, Sutra sthana 6th Chapter, Sloka 15-16.
12. Acharya Kaiyadeva, Kaiyadeva Nighantu, Dhanya Varga, Shloka No-16 redacted by Sharma P.V., 1st edition, New-Delhi, Chaukhambha publications, 1979 page no 303
13. Agnivesha. Charaka Samhita with Ayurveda Dipika Commentary, Choukhamba Sanskrit series. Varanasi. 1994, Sidhi sthana, 12th Chapter, Sloka 16.
14. Drewnowski, A. The Nutrient Rich Foods Index helps to identify healthy, affordable foods. Am. J. Clin. Nutr. 2010, 91, 1095s–1101s.
15. Abeyrathne, E.; Ahn, D.U. Isolation of value-added components from egg white and their potential uses in food, nutraceutical, and pharmaceutical industries. In Handbook of Eggs in Human Function; Watson, R.R., De Meester, F., Eds.; Wageningen Acad Publ: Wageningen, the Netherlands, 2015; pp. 35–52.
16. Kovacs-Nolan, J.; Phillips, M.; Mine, Y. Advances in the value of eggs and egg components for human health. J. Agric. Food Chem. 2005, 53, 8421–8431.
17. Anton, M.; Nau, F.; Guerin-Dubiard, C. Bioactive fractions of eggs for human and animal health. In Improving the Safety and Quality of Eggs and Egg Products, Vol 2: Egg Safety and Nutritional Quality; Van Immerseel, F., Nys, Y., Bain, M., Eds.; Woodhead Publ Ltd.: Cambridge, UK, 2011; pp. 321–345.
18. Mahmoudi M, Ebrahimzadeh MA, Pourmorad F, Rezaie N, Mahmoudi MA. Anti-inflammatory and analgesic effects of egg yolk: a comparison between organic and machine made. Eur Rev Med Pharmacol Sci. 2013 Feb;17(4):472-6. PMID: 23467945.
19. Acharya Kaiyadeva, Kaiyadeva Nighantu, Dhanya Varga, Shloka 8-9 redacted by Sharma P.V., 1st edition, New-Delhi, Chaukhambha publications, 1979 page no 301.
20. Vriddha Vagbhata, Ashtanga Samgraha with Indu commentary of Sasilekha, edited by Shivprasad Sharma, published by Chaukhambha series, Kalpa sthana, 5th Chapter Sloka 11.
21. Susruta. Susruta Samhita, Chikitsa sthana English translation edited by PriyavratSharma, Chaukhambha visvabharati, Uttara sthana, 12th Chapter, Sloka 24-26.
22. Salari M, Salari R, Dadgarmoghadam M, Khadem-Rezaiyan M, Hosseini M. Efficacy of egg yolk and nitro-glycerine ointment as treatments for acute anal fissures: A randomized clinical trial study. Electron Physician. 2016 Oct 25;8(10):3035-3041. doi: 10.19082/3035. PMID: 27957300; PMCID: PMC5133025.
23. Bhava Mishra, Mishra B. S. (editor), Bhavaprakasha, Madhyama Khanda, Vatavyadhichikitsa 24/ 77, 11 ed 2012, Kashi Sanskrit bhavan Varanasi, p. 35
24. Tadas V, Parve S. Evaluation of Efficacy of Kukkutanda Pottali Sweda and Kukkutanda Upanaha Sweda in Manyasthambha - A Comparative Study, Int. J. Adv. Res. 2017;5(11) 919-926

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