

**THERAPEUTIC AND NUTRITIONAL VALUES OF TAKRA (BUTTERMILK)**Rajendra Nirgude^{1*}, Sandeep V. Binorkar², Gajanan R. Parlikar³, Milind C. Kirte⁴, Deepak P. Savant⁵¹Samhita Siddhanta Dept. Manjara Ayurved College, Latur (M.S.), India²Department of Agadtantra, Govt. Ayurved College, Nanded, India³Zilla Parishad. Sangli, India⁴Department of Sharirkriya, Annasaheb Dange Ayurved College, Ashta, Dist. Sangli, India⁵Department of Shalakya Vasantdada Patil Ayu college, Dist. Sangli, India

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ABSTRACT

Takra (Buttermilk) is a dietary product and is being used by Ayurveda from centuries. Takra is a product obtained by curd (fermented product of milk). In Ayurveda the usefulness of Takra is mentioned in many topics like Arsha (Piles), Udara (Ascites), Grahani (Sprue) etc. Along with this Ayurveda also mentioned the importance of Takra in disturbed condition of Agni (Digestive Fire). Takra acts as Tridoshshamak by means of its different Gunas (Properties). Takra is light for digestion hence is preferable in patients suffering from the diseases having Mandagni (Low digestive fire). Due to these specialty Takra remains a key component while thinking about the medicine and dietary supplementations for the patients of Agni Vikruti (abnormal conditions of digestive fire).

KEY WORDS: Takra, Buttermilk, Arsha, Udara, Grahani.**INTRODUCTION**

Takra (Buttermilk) is a dietary product & is being used by many people around the world by centuries. Many kinds of buttermilk preparation methods are available in the world. In the areas of Indian subcontinent the buttermilk is known as Traditional Buttermilk. In these areas buttermilk is prepared from curd. In Ayurveda Buttermilk is commonly known as Takra. In the compendiums of Ayurveda it is mentioned that Takra is very useful in the digestive problems and the diseases associated with the digestion. In the compendiums like Charaka Samhita, Sushruta Samhita & Ashtana Hridayam (commonly known as Bruhatrayee), the usefulness of Takra is mentioned in the diseases like that of Grahani (Sprue), Udara (Ascites), Arsha (Piles) etc.

Ayurveda states importance of Agni (Digestive Fire) through its compendiums to keep healthy status of the body in a healthy condition. Agni, if disturbed, can create many kinds of disorders as listed above. It is interesting to see how Takra acts as primary digestive aid in the diseases associated with the Agni. Takra can also be used as a Pathy Ahara (Beneficial diet) to maintain healthy status of the body. In this article the efforts have been taken to rule out the importance of Takra (Buttermilk) from Charak Samhita. Charak Samhita is an important compendium of Ayurveda which is supposed to be upmost in the branch of medicine. In Charak Samhita, Takra is mentioned in Agrya Dravyas (the most preferable dravya in its group). Takra by means of its different Gunas (properties) acts as Tridoshshamak (it decreases kapha, vata and do not allow pitta to aggravate). Due to this specific property it is very useful in the patients suffering from Agni Vikruti (abnormal conditions of digestive fire) having different kinds of Dosha Dushti (abnormal conditions of Dosha) and having different kinds of Prakuti (Constitution). Hence Takra is an important component in treating the patients suffering from the diseases related with Agni.

Vedic References of Takra

Ayurveda also mentioned the usefulness of Takra (Buttermilk) in its compendiums. In Vaidyakiya Subhashit Sahityam it is mentioned that God in the Heaven

got immortality due to a pious drink (Amrut) & the humans have Takra (Buttermilk) on the Earth to be immortal¹. It is also mentioned that Takra (Buttermilk) is hard to get for Shakra (The King of God – Indra).²

Importance of Takra (Buttermilk)

Charaka Samhita mainly underlines the importance of Takra (Buttermilk) by various quotes. Charak mentioned that Takra (Buttermilk) is very useful in following conditions³

Shotha (Swelling)

Grahanidosha (Sprue),

Mutragraha (Difficulty in Micturation),

Udara (Ascites),

Aruchi (Anorexia),

Snehvyapad (Complication due to overuse of oily substances),

Garavisha (Low Potency Poison)

In Udara (Ascites) Charak mentioned that Takra (Buttermilk) is very useful in following conditions⁴-

- Gaurav (Heaviness in the body)

- Arochak (Anorexia)

- Mandagni (Low Digestive Fire)

- Atisaar (Diarrhea)

- Vata-Kapha pradhan vyadhi.

In Arsha (Piles) topic the usefulness of Takra (Buttermilk) is mentioned in Vata – Kaphapradhan (Aggravated conditions of Vata & kapha) Arsha. Further He stated that there is no other medicine on Vata-Kapha pradhan Arsha as that of Takra (Buttermilk)⁵.

Takra should be used in two forms –

• Sasneha Takra (Buttermilk with cream)

• Ruksha Takra (Buttermilk without cream).

On the basis of the cream content Acharya divided Takra (Buttermilk) in three different categories as⁶ –

• Ruksha Takra (Buttermilk) – Udhruhasneha – Buttermilk without cream.

• Eashatsnigdha Takra (Buttermilk) – Ardhodhrutasneha – Takra (Buttermilk) with half removed cream.

• Snigdha Takra (Buttermilk) – Anudhruta Takra (Buttermilk) – Takra (Buttermilk) with cream.

Charak stated that Takra (Buttermilk) can be used in three different manners on Dosha & Agni conditions.

- Kapha↑, Bala↓↓, Agni↓↓ = Ruksha Takra (Buttermilk)
- Pitta↑, Bala↓↓, Agni↓↓ = Slightly Snigdha Takra (Buttermilk)
- Vata↑, Bala↓, Agni↓ = Snigdha Takra (Buttermilk)

Usefulness of Takra

The specialty of Takra(Buttermilk) is not limited With Udara (Ascites) & Arsha (Piles), but it has been proved a great importance in Grahanidosha (Sprue) also. Grahanidosha (Sprue) is a condition related with Agni Vikriti. In this condition Takra (Buttermilk) is useful by means of its⁷⁻

- Deepan (stimulates the power of digestion),
- Grahi &
- Laghvatva property (lightness in the body).
- Takra(Buttermilk) acts as Tridoshghna by means of its different Guna as⁷⁻
- It is useful in Pittadosha by – Madhur (Sweet) Vipaka.
- It is useful in Kapha Dosha by- Kashaya rasa (Astringent Taste), Ushna Virya (Hot Potency), Vikasitva (Relives stiffness & causes looseness of joints) & Ruksha Guna (Dry Property).
- It is useful in Vata by – Madhura & Amla Rasa (Sweet & Sour Taste), Snigdha Guna.

Time period of Takra Consumption (Takra sevan Kal)

Acharya Charak also underlines the fact of time period for Takra Sevana⁸ (Buttermilk consumption). They mentioned that one should indulge in Takra Sevana (Buttermilk consumption) for 7 days, 10 days, 15 days, & 30 days only.

They also warned not to overuse Takra(Buttermilk) after 30 days. In these 30 days Takra (Buttermilk) Sevana Kal, one should carry out the pattern of Takra Sevana (Buttermilk consumption) in increasing & decreasing order (Utkrsha & Apakarsha). The importance of observing the time period of Takra Sevana (Buttermilk consumption) is,

It preserves the increased power,

- Strengthens the power of Vata Dosha,
- Maintains Bala (strength) ,
- Upachaya (Consistency of the body) &
- Varna (maintains the color of skin)⁹.

Acharya mentioned Takra (Buttermilk) as useful treatment in the patients of Ashtodara. They also mentioned to use Takra (Buttermilk) with various Dravyas in different kinds of Udara as¹⁰ -

- **Nichayaja Udara** – Trikatu + Kshara + Lavana + Takra(Buttermilk).
- **Vataja Udara** – Pippali + Lavana + Takra(Buttermilk).
- **Pittaja Udara**- Sharkara + Madhuka + Takra(Buttermilk).
- **Kaphaja Udara** – Yavani + Saindhava + Ajaji + Trikatu + Takra(Buttermilk).
- **Pleehodara** – Madhu + Taila + Vacha + Shunthi + Shathava + Kushtha + Saindhava + Takra(Buttermilk).
- **Jalodara** - Trikatu + Takra(Buttermilk).
- **Badhhodara** – Hapusha + Yavani + Ajaji + Saindhava + Takra(Buttermilk).
- **Chhidrodara** – Pippali + Kshaudra + Takra(Buttermilk).

Takrarishtam

Kalpa prepared from Takra (Buttermilk) including various other ingredients is known as “Takrarishtam”. Takrarishtam is discussed in two different topics with different contains-

- Arshaadhikara (Piles).
- Grahanidoshaadhikara (Sprue).

In Arsha (piles) topic usefulness of Takrarishtam is mentioned as¹¹ –

- Deepan (stimulates the power of digestion),
- Rochana (improves taste of mouth),
- Varnya (improves colour of skin),
- Kapha Vatanulomana (allows doshas to act in normal way),
- GudaShothnashak (removes the swelling of anal region),
- GudaKandunashak (removes the itching of anal region),
- AratiNashak (improves mental condition),
- BalaVardhana (increases power)⁴.

In Grahanidosha topic importance of Takrarishtam is mentioned as¹²⁻

- Deepana (stimulates the power of digestion),
- Shothhara (decreases swelling),
- Gulmahara,
- Arshahara (acts on haemorrhoids),
- Kriminashak (removes worms),
- Mehanashak (decreases diabetic condition),
- Udaranashak (acts on ascities).

OTHER IMPORTANCE OF TAKRA (BUTTERMILK)

- Takra (Buttermilk) is also used for Pachana (Digestive) & Grahi (Constipative) in the form of Peya¹³.
- Takra (Buttermilk) is also used in the complications of ghee & oil.¹⁴
- Takra (Buttermilk) is also used in Sthaulya (obesity) Chikitsa in the form of Takrarishtam¹⁵.
- Takra (Buttermilk) is used in Pramehachikitsa along with Haritakichurna.¹⁶
- Lastly AcharyaCharaka mentioned the importance of Takra (Buttermilk) in Agryadryvas as-

Regular use of Takra (Buttermilk) is useful in Grahanidosha, Shotha, Arsha & complication of Ghrita (ghee) consumption.¹⁷

Buttermilk

Buttermilk is a liquid obtained by curd. According to the preparation method buttermilk is divided in two types.

- Traditional buttermilk
- Cultured buttermilk

Traditional buttermilk is the liquid which remains after churning the curd. That is the cream is removed from the butter and the end product is called as traditional buttermilk.

The cultured buttermilk is a fermented dairy product which can be observed in the warm climate as like the Indian subcontinent (India, Pakistan etc.). In these areas unrefrigerated fresh milk sours quickly due the warm climate. The sour taste of buttermilk is due to lactic acid bacteria. Streptococcus lactis or Lactobacillus Bulgaricus, one of these two bacteria is responsible to create more tartness. The increased acidity level of buttermilk is due to lactic acid which is produced by lactic acid bacteria by fermenting lactose (primary sugar of the milk). The pH of milk decreases due to increased acidity level and casein (primary milk protein) precipitates causing clabbering and curdling of milk.

Nutritional Values of Takra (Buttermilk)^{18,19,20}

Buttermilk is rich source of Potassium, Calcium, Phosphorus, VitaminB12, & Riboflavin. Buttermilk is a good aid for those suffering from digestive problems.

Table 1 - Nutritional Values of Takra (Buttermilk)^{18,19,20}

SN	Contents	Quantity	% Value
1	Calories	--	100
2	Total Fat	2.2 gm	4%
3	Saturated Fat	1 gm	8%
4	Cholesterol	10mg	4%
5	Sodium	260mg	10%
6	Total Carbohydrates	10g	4%
7	Protein	8g	15%
8	Vitamin A	130.00IU	2%
9	Vitamin C	5.00mg	4%
10	Calcium	--	30%
11	Thiamin	--	6%
12	Zinc	--	8%
13	Riboflavin	--	20%
14	Vitamin B-6	--	4%
15	Folate	--	4%
16	Vitamin B-12	--	10%
17	Phosphorus	--	20%
18	Magnesium	--	8%
19	Potassium	370 mg	--
20	Calcium	284 mg	--
21	Protein	16.55g	33.1%
22	Iron	0.25mg	1.4%

One cup of buttermilk contains 2.2 grams of fat & 99 calories, whereas whole milk contains 8.9 grams of fat & 157 calories (some brands may vary regarding the fat contains of buttermilk).

Importance

Vitamin B12 helps synthesize fatty & amino acids. It converts glucose of the body into the energy. B12 promotes nerve cell growth and also fights against stress and anemia. Potassium & calcium are supposed beneficial for bone health and buttermilk is a rich source of these two. Buttermilk is very easy in digestion so it is suggested in the digestive problems. The lactic acid of buttermilk is much friendly on digestive tract than that of lactose of whole milk. Riboflavin plays an important role to convert glucose into the energy as that of vitamin B12. Potassium helps to minimize the blood pressure.

The symptoms like heartburn, aggravated acid level of stomach can be minimized with the help of buttermilk. It prevents the acid of the stomach to come up through esophagus by coating the lining of stomach. The traditional buttermilk is also helpful in weight loss & dieting purpose.

Buttermilk is rich in potassium, vitamin B-12, calcium, phosphorous and probiotics which help strengthen the digestive system and the immunity of the body. Thus buttermilk plays an important role in many conditions of the body.

CONCLUSION

Takra (Buttermilk) is very useful in the diseases associated with the AgniVikriti. By means of its Rasa (Taste), Virya (Acting Property), Vipaka (The Taste that emerges after digestion) & Guna (Property) acts as Tridoshaghana. It is found very useful in Vata-KaphaPradhan conditions. Besides the usefulness of Takra (Buttermilk) in Grahani (Sprue),

Arsha (Piles) & Udara (Asities) it is also useful in Sthaulya (Obesity), Prameha (Diabetes), Shotha (Swelling), complication of Ghrita (Ghee), Tail (Oil) & Garavisha (Low Potency Poison). Takra (Buttermilk) can be used as principal drug like Takrarishtam or along with various Dravyas or as a dietary product in the form of Pathya Ahara (Beneficial Diet). Nutritional Values also suggest that Takra (Buttermilk) also strengthen the immunity and helps to maintain the health by preventing diseases.

REFERENCES

1. Kshemkuthal – Vaidyakiya Subhashit Sahityam topic no. 12 Vividhashit Vidyaniya adhyay, verse no.12/04 :74
2. Vaidyakiya subhashit Sahityam topic no.12 Vividhashit Vidyaniya Adhyay, verse no.12/05 :75
3. Charak Samhita Sutrasthana Chaukhamba Surbharati Prakashan by Dr. Brahmanand Tripathi & Dr. Ganga sahay Pandey 2002. Verse no.27/229 :527
4. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.13/106-107 :306
5. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.14/77 :333
6. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.14/84-85 :334
7. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.15/117-119 :376
8. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.14/78 :333
9. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.14/83-84 :333
10. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.13/101-106 :305-306
11. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.14/75 :332
12. Charak Samhita Chikitsasthana Chaukhamba Publication by Prof. Raviduttta Tripathi & Acarya Vidyadhara Shukla 2002. Verse no.15/121 :377
13. Charak Samhita Sutrasthana Chaukhamba Surbharati Prakashan by Dr. Brahmanand Tripathi & Dr. Ganga sahay Pandey 2002. Verse no.2/19 :54
14. Charak Samhita Sutrasthana Chaukhamba Surbharati Prakashan by Dr. Brahmanand Tripathi & Dr. Ganga sahay Pandey 2002. Verse no.2/30 :58
15. Charak Samhita Sutrasthana Chaukhamba Surbharati Prakashan by Dr. Brahmanand Tripathi & Dr. Ganga sahay Pandey 2002. Verse no.21/22 :404
16. Charak Samhita Sutrasthana Chaukhamba Surbharati Prakashan by Dr. Brahmanand Tripathi & Dr. Ganga sahay Pandey 2002. Verse no.23/17 :423
17. Charak Samhita Sutrasthana Chaukhamba Surbharati Prakashan by Dr. Brahmanand Tripathi & Dr. Ganga sahay Pandey 2002. Verse no.25/40 :454
18. Ashwini Wagle, M.S., R.D., Sajida Arsiwala, et.al - Carbohydrate Counting for Traditional Indian & Pakistani Foods –Dept. of Nutrition and Food Science, San Jose State University :02
19. <http://www.health.gov/dietaryguidelines/dga2005/document/html/appen dixb.htm> (Accessed on 01.02.2013)
20. <http://www.caloriegallery.com/foods/calories-in-lowfat-cultured-buttermilk.htm> (Accessed on 01.02.2013)

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