



Kolico Tablet: An Effective Ayurvedic Proprietary Remedy for Abdominal Pain

¹Dr. Sakshi Badyal, Research Officer, Karma Ayurveda, New Delhi

²Dr. Poonam Dang, Research Officer, Karma Ayurveda, New Delhi

³Dr. Puneet Dhawan, Director, Karma Ayurveda, New Delhi

⁴Dr. Himanshu Shekhar Tiwari, President Technical, Karma Ayurveda, New Delhi

Corresponding Author: Dr. Sakshi Badyal, Research Officer, Karma Ayurveda, New Delhi.

Citation this Article: Dr. Sakshi Badyal, Dr. Poonam Dang, Dr. Puneet Dhawan, Dr. Himanshu Shekhar Tiwari, “Kolico Tablet: An Effective Ayurvedic Proprietary Remedy for Abdominal Pain”, IJMSIR - January - 2024, Vol – 9, Issue - 1, P. No. 70 – 75.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Introduction: Udara roga is an umbrella term described in Ayurveda for various diseases or symptoms associated with the abdomen. Udarshoola generally appears as a prodromal (Purvaroop), symptom (Roopa) or arising out of complication (Updravajanit) but often affects one's day to day activities to a greater extent. Tablet KOLICO was formulated with a view to treat abdominal pain mainly originating due to hyperacidity, constipation and other associated gastric trouble.

Methodology: For collecting the data, classical text along with published literature were accessed.

Result: The ingredients were found to possess multiple biological activities including their acid-neutralizing activity, anti-spasmodic activity, carminative and laxative property.

Conclusion: KOLICO Tablet is an effective Ayurvedic proprietary polyherbo-mineral formulation which can help in treating the patients having colic or suffering from gastric troubles since long time.

Keywords: KOLICO Tablet, Ayurvedic proprietary medicine, Herbo-mineral formulation, abdominal pain.

Introduction

International Association for the Study of Pain (IASP) defines pain as ‘an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage’. According to etiology, pain can be classified as nociceptive pain which is due to stimulation of nociceptors by noxious stimuli. Hence, the neuropathic pain is the result of nervous system dysfunctioning.¹ Further, based on etiology pain can be either somatic or visceral type. Based on the duration, pain can be either acute or chronic. Acute pain is defined as the pain of acute onset, generally ≤ 3 months. Whereas, pain is considered to be of chronic nature when the duration is > 3 months.²

Pain is an important protective mechanism of the body in response to the harmful stimulus. Pain is always an unpleasant sensation and this discomfort or sensation is felt by the irritation of pain receptors present in internal organs, joints and skin. These receptors are sensitive to chemical, mechanical or thermal stimuli. When these receptors come in contact with any of the stimulus it

results into the processing of an electrical signal. The signal in the form of impulse is transmitted by nerve fibers to the spinal cord and then to the brain, which in return generates response that something is hurting.¹ Pain can be understood as a multidimensional phenomenon which consists of both physiological as well as subjective perception and is controlled by the central nervous system. Depending upon the severity of the pain, modern science has a set class of drugs that are used for the treatment. Usually, Non-opioid, NSAIDs, Paracetamol, Aspirin as the first step in the management of pain. If the condition persists or further the intensity of pain increases then weak opioids (tramadol, codeine etc.) are added. If further management is required, then strong opioids (fentanyl, diamorphine etc.) are used.⁴

In Ayurveda, Shoola is the term used for pain and is usually appeared as a Lakshana or symptom of a disease. It is also mentioned among the Purvaroopas or prodromal symptoms or as the Updrava or complication of previously existing disease. Shoola is generally considered as a cardinal symptom attributed to Vatadosha. Disorders of Vataja dosha arise primarily either due to Aavrana i.e., occlusion of dosha or due to dhatukshaya i.e., depletion of body tissues. Vata doshaviation is considered as the main culprit in the occurrence of Shoola. Again, depending on the etiology of pain and the organ associated, Samprapti ghatak (constituents of pathogenesis) may vary.

Abdominal pain or colic refers to the pain originating from the hollow viscera of the abdomen. Abdominal pain could be a result of multiple underlying pathology. Mostly abdominal pain arises due to gastric hyperacidity, obstruction of flatus or chronic constipation. Other associated reasons could be gastric or peptic ulcers. Hyperacidity or Amlapitta involves the derangement of Pitta dosha. Handful of published data was available

online to address the concern, therefore, pharmacokinetics and pharmacodynamics of ingredients of KOLICO Tablet are discussed in detail in this paper. KOLICO tablet consists of a herbo-mineral blend of Amalaki, Haritaki, Trikatu, Shankh Bhasma, Tulsi, Yavani, Srajjikshara, Hingu, Chitrak, Nimbu Sattva, Navsacara, Kala namak and Pudina Satva in a definite proportion.

Materials

Drug selected for the review is KOLICO TABLET manufactured by KRM AYURVEDA PRIVATE LTD., Kundli, Haryana. Following resources were referred for the complete review- The Textbook of 'Bhavaprakasha Nighantu' by Acharya Bhavamishra. Published articles from various databases like PubMed, Research gate etc. and search engines like Google, Google scholar etc.

Result

Properties of the ingredients of KOLICO tablet as described in classical texts and along with published data are mentioned as following:

Table 1: Properties of Ingredients of KOLICO Tablet.

| Sn. | Ingredient | Therapeutic activities |
|-----|---------------|---|
| 1. | Amalaki | Mridurechak, Pittajshoolahar, Amlapitta nashak, Parinaamshoolhar ⁵ |
| 2. | Haritaki | Shresth mridurechak, Amlapittahar, Jeerna vibandh ⁶ |
| 3. | Trikatu | Agnideepak ⁷ |
| 4. | Shankh Bhasma | Amlapitta nashak, Parinaamshoolhar ⁸ |
| 5. | Tulsi | Vatanashak, Pachanvikar nashak ⁹ |
| 6. | Yavani | Udarshoolahar, Adhmanhar, Vatanashak, Gulmahar ¹⁰ |
| 7. | Srajjikakshar | Amltanashak, Adhmanhar, Shoolnashak, Parinaamshoolhar ¹¹ |
| 8. | Hingu | Vataroganashak, Shoolhar, Adhmanhar, Vibandh nashak ¹² |

| | | |
|-----|---------------|--|
| 9. | Chitrak | Vatahar, Adhmanhar, Gulmahar ¹³ |
| 10. | Nimbu Sattva | Udarshoolhar, Vatanashak, Vibandh nashak ¹⁴ |
| 11. | Navsadar | Shoolhar ¹⁵ |
| 12. | Kala Namak | Rechaka, Shoolnashak, Gulmahar ¹⁶ |
| 13. | Pudina Sattva | Shoolnashak, Adhmanhar ¹⁷ |

Some studies of the ingredients of KOLICO Tablet regarding pain relieving, laxative, abdominal disturbances issues etc. have been published mentioned in Table 2.

Table 2: Experimental and clinical studies of the ingredients of KOLICO Tablet:

| Sn. | Ingredient | Experimental and Clinical Studies |
|-----|---------------|--|
| 1. | Amalaki | Highly statistical results were found in upper abdomen burning sensation, acid eructation, constipation, flatulence and tenderness in upper abdomen. ⁵ |
| 2. | Haritaki | Significant improvement in most of the symptoms was endured. All the study patients showed an excellent tolerability to the study drug. ⁶ |
| 3. | Shankh Bhasma | It can be suggested from our study that Shankhabhasma provides anti-ulcer activity in rats. It may act as gastric cytoprotective agent by modulating scavenging of free radicals. ⁷ |
| 4. | Tulsi | Study shows that the lipoxigenase inhibitory, histamine antagonistic and antisecretory effects of the oil could probably have contributed towards antiulcer activity. O. sanctum fixed oil may be considered to be a drug of natural origin which possesses both anti-inflammatory and antiulcer |

| | | |
|----|----------------|---|
| | | activity. ⁸ |
| 5. | Srajjikaksh ar | Highly statistical results were found in upper abdomen burning sensation, acid eructation, constipation, flatulence and tenderness in upper abdomen. ⁹ |
| 6. | Hingu | The gastric mucosal protective effect of Hingu Churna is brought by inhibiting the gastric secretion, which shows it may act like a proton pump inhibitor. Further, the anti-ulcer activity of HC which reduced gastric volume and total acidity in pylorus ligation ulcer model reveals that HC may act as a H2 receptor antagonist. ¹⁰ |
| 7. | Kala Namak | The traditional herbal formulation shows significant laxative activity in mice and the activity was compared to that of cremaffin (Milk of magnesia 11.25ml, liquid paraffin 3.75ml per 15ml; emulsion) a commonly used laxative in clinical practices. ¹¹ |
| 8. | Pudina Sattva | Two formulations containing Pudina as main ingredient possesses anti-spasmodic, anti-emetic, digestive properties. ¹² |

Discussion

Abdominal pain originating due to gastric disturbances such as Amlapitta (hyperacidity), obstruction of flatus or constipation requires drugs that consists of acid-neutralizing, analgesic, laxative properties and regulates the downward movement of Vata Dosha. The composition of KOLICO tablet is such a blend which consists of ingredients containing properties that exhibits the desirable therapeutic activity. Different experimental studies conducted on animal models suggested that the

Amla (*Phyllanthus emblica*) extract possess antisecretory, anti-ulcer, cytoprotective activities. Its extract reported marked reduction in the basal gastric secretions induced by pyloric-ligations. It acts as gastro-protective drug. []Haritaki (*Terminalia chebula*) has been used by Ayurvedic practitioners since ages for its laxative actions and downward regulation of Apana Vayu (Anulomana). Hingu (*Ferula narthex*) is another such drug which is not only used by practitioners but is a common home remedy also. It has potent efficacy to manage abdominal pain. Many experimental studies have verified the pain-relieving property of Hingu.¹⁴

Shankha Bhasma is another constituent of this formulation that helps in relieving symptoms of hyperacidity. It possesses alkaline (Kshariye) property which neutralizes the excess acid production in the stomach. It is an effective mineral preparation in Ayurvedic pharmaceuticals which undergoes a set of processing to achieve its therapeutic activity. Studies have reported that classically prepared Shankh Bhasma possess excellent acid neutralizing activity.¹⁵

Salts like Navsadar and Kala Namak (Black salt) possess carminative and laxative properties. It also aids in digestion. These consists Laghu (light) and Atyant Sukshma (fine) property as per Ayurvedic texts, owing to which have potential to enter into the Srotas (micro channels) of the body and cleanse them. Ayurvedic physicians also use these as mild laxatives and to treat hyperacidity.

Trikatu was added in this formulation to enhance the bioavailability of the KOLICO tablet. As, modern pharmacology has also revealed by virtue of many published studies that Trikatu possess the quality to increase the bioavailability of various other ingredients as well as synthetic drugs, when incorporated with them, it helps in attaining the desirable therapeutic activity¹⁶

Conclusion

From above discussion, it can be concluded that the ingredients used in this formulation possess anti-spasmodic, acid neutralizing and laxative properties. Hence, to conclude, it is postulated that KOLICO tablet is an effective herbo-mineral Ayurvedic proprietary medicine primarily indicated for its use in hyperacidity, abdominal pain, flatulence and constipation.

References

1. Kiran K. Koneti, Martin Jones, Management of acute pain, Surgery (Oxford), Volume 34, Issue 2, 2016, Pages 84-90, ISSN 0263-9319, <https://doi.org/10.1016/j.mpsur.2015.11.008..S>,
2. Mahesh & Wele, Asmita & Patgiri, B & Pórszász, Róbert. (2019). REVIEW OF PAIN: AN AYURVEDIC APPROACH. International Research Journal of Pharmacy. 10. 20-34. 10.7897/2230-8407.1009256.
3. Swieboda P, Filip R, Prystupa A, Drozd M. Assessment of pain: types, mechanism and treatment. Ann Agric Environ Med. 2013;Spec no. 1:2-7. PMID: 25000833.
4. who.int. Geneva. World Health Organisation online resources. <https://www.who.int/news-room/fact-sheets/detail/palliative-care>. Published; 2018.
5. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Hartikyadi Varga, Shlok no. 38-41, Page no. 10.
6. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Hartikyadi Varga, Shlok no. 19-22, Page no. 8.

7. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Hartikyadi Varga, Shlok no. 62-63, Page no. 18.
8. Shri Sadanand Sharma, Rasatarangini, 'Tarangini' Hinditeeka, Teekakar Dr. Devnath Singh Gautam, Chaukhamba Surbharti Prakashan, Varanasi, 1st edition 2019, Chapter 12, Shlok no. 20-21, Pg. no. 268.
9. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Pushp Varga, Shlok no. 62-63, Page no. 496-497.
10. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, HaritkyadiVarga, Shlok no. 76-77, Page no. 24.
11. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Haritkyadivarga, Shlok no. 252-255, Page no. 160.
12. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Pushp Varga, Shlok no. 98-101, Page no. 39.
13. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Pushp Varga, Shlok no. 70-71, Page no. 21.
14. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Aamraadiphala Varga, Shlok no. 137-138, Page no. 583.
15. Shri Sadanand Sharma, Rasatarangini, 'Tarangini' Hinditeeka, Teekakar Dr. Devnath Singh Gautam, Chaukhamba Surbharti Prakashan, Varanasi, 1st edition 2019, Chapter 14, Shlok no. 12, Pg. no. 312.
16. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Haritkyadivarga, Shlok no. 248-249, Page no. 155.
17. Prof K.C. Chunekar, Bhavprakash Nighantu of Sri Bhavamishra, Edited by Dr. Gangasahay Pandey, Chaukhambha Bharati Academy, Varanasi, Reprint:2022, Parishishta 1, Page no. 806.
18. Panchala Prasad, Goli & Babu, V. & Swamy, Geeta. (2009). EFFECT OF AMALAKI CHURNA AND SVARJKA KSHARA INAMLAPITTA (HYPERACIDITY). XXX. 93-106.
19. Munshi R, Bhalerao S, Rathi P, Kuber VV, Nipanikar SU, Kadbhane KP. An open-label, prospective clinical study to evaluate the efficacy and safety of TLPL/AY/01/2008 in the management of functional constipation. J Ayurveda Integr Med. 2011 Jul;2(3):144-52. doi: 10.4103/0975-9476.85554. PMID: 22022157; PMCID: PMC3193686.
20. Pandit, Shrihari & Sur, Tapas & Jana, U. & Bhattacharyya, D. & Debnath, Priyajit. (2000). Anti-ulcer effect of Shankha bhasma in rats: A preliminary study. Indian Journal of Pharmacology. 32. 378-380.
21. Surender Singh, D.K Majumdar, Evaluation of the gastric antiulcer activity of fixed oil of Ocimum sanctum (Holy Basil), Journal of

- Ethnopharmacology, Volume 65, Issue 1, 1999, Pages 13-19, ISSN 0378-8741, [https://doi.org/10.1016/S0378-8741\(98\)00142-1](https://doi.org/10.1016/S0378-8741(98)00142-1).
22. Penchala Prasad, Goli & Babu, V. & Swamy, Geeta. (2009). EFFECT OF AMALAKI CHURNA AND SVARJIKA KSHARA INAMLAPITTA (HYPERACIDITY). XXX. 93-106.
23. K. Arivumani, V. Velpandian, V. Banumathi, S. Ayyasamy, A. Kumar, Anti-Ulcer Activity of Hingu Chooranam against Aspirin and Pylorus Ligation Induced Gastric Ulcer in Rats; International Journal of Pharma Research & Review, April 2013; 2(4):13-21.
24. Kumar, Dushyant & Ganguly, Kuntal & Hegde, H.V. & Patil, Paragouda & Sharma, A.K. & Joshi, Dr. R. K. & Roy, Subarna & Kholkute, S.D.. (2013). Evaluation of traditional formulation for laxative activity in mice. Journal of Bio Sciences and Technology. 6. 14-16.
25. Richa A., Kadam HM, Kadam SS, Paradkar AR; Studies on Shankha Bhasma-IS Antacid activity evaluation of Shankha Bhasma; Indian Journal of Pharmaceutical Sciences; 1997; 59(5):254-256.
26. A.J. Al-Rehaily, T.S. Al-Howiriny, M.O. Al-Sohaibani, S. Rafatullah, Gastroprotective effects of 'Amla' *Embllica officinalis* on in vivo test models in rats, Phytomedicine, Volume 9, Issue 6, 2002, Pages 515-522, ISSN 0944-7113, <https://doi.org/10.1078/09447110260573146>.
27. Tripathi AK, Rawat S, Mitra S, Sharma U, Sharma K (2019). A review on pharmacological actions of *Ferula asafoetida* oleo-gum-resin (hingu) in the management of abdominal pain. Current Medical and Drug Research, 3 (1), Article ID 192.
28. Richa A., Kadam HM, Kadam SS, Paradkar AR; Studies on Shankha Bhasma-IS Antacid activity evaluation of Shankha Bhasma; Indian Journal of Pharmaceutical Sciences; 1997; 59(5):254-256.
29. Kaushik, Rahul & Jain, Jainendra & Danish Khan, Azhar & Rai, Pallavi. (2018). Trikatu - A combination of three bioavailability enhancers. International Journal of Green Pharmacy. 12. S437-S441.