

SIDDHA THERAPEUTIC APPROACHES IN THE MANAGEMENT OF CERVICAL CANCER: A REVIEW OF CLASSICAL FORMULATIONS AND THEIR PHARMACOLOGICAL RELEVANCE

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ABSTRACT

Cervical cancer ranks as the second most common cancer among women in India, with an estimation of 1.23 to 1.27 lakh new cases reported annually, posing a significant health burden to the country. In Siddha system of medicine, conditions analogous to cervical malignancies are described under the term “*Yoni Puttru*”. The present review aims to systematically compile Siddha herbal, herbo – mineral and mineral formulations indicated for *Yoni Puttru* from classical siddha texts listed in the First Schedule of the Drugs and Cosmetics Act, 1940 and to explore their potential pharmacological relevance. Certain formulation, such as *Rasa Parpam*, (mentioned in *Agasthiyar Paripuranam*) and *Chitramoolathy Mathirai* (mentioned in *Veeramamuni Nasa Kandam*) have been evaluated in experimental studies and demonstrated

apoptosis - inducing potential in HeLa and SiHa cell lines. This review underscores the importance of integrating traditional Siddha knowledge with modern scientific validation for potential cervical cancer management.

KEYWORDS: Traditional medicine, Siddha formulations, *Yoni Puttru*, *Karuppai Kazhunthu Puttru*, *Puttru Noi*, Cervical cancer.

INTRODUCTION

Cervical cancer is a largely preventable malignancy; however, it continues to pose a significant public health challenge, especially in low- and middle-income countries.^[1,2] It is the fifth most common cancer by new cases and fourth by deaths worldwide.^[4] In India, cervical cancer is the second most common cancer among women, with an estimated 1.23 to 1.27 lakh new cases and 70 thousand deaths reported annually. Persistent infection with high-risk HPV strains, particularly 16 and 18 is recognized as the primary etiological factor.^[3] Despite advances in screening and treatment, there remains a growing interest in integrating traditional medical knowledge with modern scientific methods for improved disease management. In the Siddha system of medicine, clinical features resembling cervical cancer are described under “*Yoni Puttru*”. According to the classical text *Yugi Vaidya Sinthamani 800*, the manifestations are categorized as *Kuruthi Yoni* (Profuse vaginal discharge mixed with blood, foul odour, discolouration and ulcerative changes in the genital tract), *Kuruthiseezh Yoni* (Severe pain, persistent blood stained discharge mixed with purulent material and foul odour) and *Mamisamagotharam* (Stone like visible hard mass, severe pain, progressive weakness and fatigue).^[5] These classical descriptions show a close resemblance to the modern clinical presentation of cervical cancer, including exophytic, infiltrative and ulcerative growth patterns. Such correlations highlight the potential relevance of Siddha literature in understanding disease pathology and exploring complementary therapeutic approaches. Therefore, the present review aims to compile and analyse Siddha formulations indicated for *Yoni Puttru* and explore their potential relevance in the management of the disease.

MATERIALS AND METHODS

Classical Siddha texts listed in the First Schedule of the Drugs and Cosmetics Act, 1940 were reviewed, and formulations specifically indicated for *Yoni Puttru* were systematically compiled and listed.

Table 1: List of Formulations, their dosage forms & corresponding classical texts.

Classical Text	Formulation	Dosage Form	Category
<i>Siddha Vaidya Thirattu</i>	<i>Rasagandi Mezhugu</i>	<i>Mezhugu</i> (Confectionary/ Semi Solid)	Herbo – mineral
	<i>Nandi Mai</i>	<i>Mai</i> (Semi Solid)	Herbo – mineral
	<i>Kausigar Kuzhambu</i>	<i>Kuzhambu</i> (Medicated Oil)	Herbo – mineral ^[6]

Bhogar (700)	<i>Sivan Vembu Chooranam</i>	<i>Chooranam</i> (Fine Powder)	Herbal
	<i>Sootha Vennai</i>	<i>Vennai</i> (Medicated butter)	Herbo-mineral
	<i>Parangipattai Rasayanam</i>	<i>Rasayanam</i> (Confectionery/Semi Solid)	Herbal
	<i>Karanthai Legiyum</i>	<i>Legiyam</i> (Confectionery/Semi Solid)	Herbal
	<i>Mega Rajanga Legiyum</i>	<i>Legiyam</i> (Confectionery/Semi Solid)	Herbo-mineral ^[7]
Pulippani (500)	<i>Rasagandi Mezhugu</i>	<i>Mezhugu</i> (Confectionery/Semi Solid)	Herbo-mineral
	<i>Megangalukku Thee Pugai</i>	<i>Pugai</i> (Fumigation)	Herbo Mineral (External) ^[8]
Agasthiyar Chenduram (300)	<i>Muthu Chenduram</i>	<i>Chenduram</i> (Processed Fine Powder)	Mineral
	<i>Ganda Chenduram</i>	<i>Chenduram</i> (Processed Fine Powder)	Mineral ^[9]
Agasthiyar Vaidya Kaviyam (1500)	<i>Vatha Rakshasa Kuligai</i>	<i>Kuligai</i> (Pills)	Herbo-mineral ^[10]
Athmarakshamrutham	<i>Karanthai Chooranam</i>	<i>Chooranam</i> (Fine Powder)	Herbal
	<i>Vallarai Nei</i>	<i>Nei</i> (Medicated Ghee)	Herbal
	<i>Rasa Parpam</i>	<i>Parpam</i> (Processed Fine Powder)	Mineral
	<i>Karuvanga Chenduram</i>	<i>Chenduram</i> (Processed Fine Powder)	Mineral ^[11]
Agasthiyar Ratna Churukkam	<i>Chitramoola Nei</i>	<i>Nei</i> (Medicated Ghee)	Herbal
	<i>Megaththennai</i>	<i>Ennai</i> (Medicated Oil)	Herbal
	<i>Tamira Parpam</i>	<i>Parpam</i> (Processed Fine Powder)	Mineral ^[12]
Veeramamuni Nasa Kandam	<i>Chitramoolathy Mathirai</i>	<i>Mathirai</i> (Tablets)	Herbal ^[13]
Agasthiyar Paripuranam (400)	<i>Rasa Karpoora Kuligai</i>	<i>Kuligai</i> (Pills)	Herbo-mineral
	<i>Rasa Parpam</i>	<i>Parpam</i> (Processed Fine Powder)	Mineral ^[14]
Agasthiyar Kanma Soothiram	<i>Rasa Parpam</i>	<i>Parpam</i> (Processed Fine Powder)	Mineral ^[15]
Chikicha Rathna Deepam	<i>Swarna Pushparasa Chenduram</i>	<i>Chenduram</i> (Processed Fine Powder)	Mineral ^[16]
Agasthiyar Vallathi (600)	<i>Trinethra Chooranam</i>	<i>Chooranam</i> (Processed Fine Powder)	Herbo – mineral
	<i>Amirtha Gendi Kukkil Vallathi</i>	<i>Mezhugu</i> (Confectionary/ Semi Solid)	Herbo-mineral ^[17]

DISCUSSION

From the above tabulation, it is evident that the mercurial (*rasam* based) formulations play a significant role in the management of cervical cancer. Preparations such as *Rasagandi Mezhugu*^[18], *Rasa Karpoora Kuligai*^[19], *Rasa Parpam* (administered with *Vallarai Nei*)^[20], and *Chitramoolathy Mathirai*^[21] had been evaluated for their apoptotic potential in HeLa and SiHa cervical cancer cell lines, demonstrating notable anticancer activity. These findings suggest that mercury – containing formulations, particularly when processed into stable forms and combined with appropriate adjuvants, may exhibit enhanced cytotoxic effects against highly proliferative and virulent cancer cells. The observed activity further supports the traditional use of *Rasa* – based drugs in Siddha oncology and highlights their potential role in targeting aggressive cancer phenotypes. *Karanthai Legiyum*^[22] has also been evaluated for its anticancer efficacy in both HeLa and SiHa cell lines, indicating its potential role in cervical cancer management. Formulations such as *Sivan Vembu Chooranam*, primarily composed of *Indigofera aspalathoides*, have demonstrated anticancer potential against HeLa cervical cancer cell lines.^[23] Similarly, *Amirtha Gendi Kukkil Vallathi*, chiefly prepared using *Semecarpus anacardium* and processed sulfur, has been reported to exhibit significant anticancer activity, attributable to its cytotoxic and immunomodulatory properties.^[24,25] These findings collectively support the therapeutic relevance of Siddha formulations, wherein the incorporation of bioactive herbal constituents contributes to the multifaceted anticancer mechanisms, including cytotoxic, apoptotic, anti-proliferative and immunomodulatory effects.

CONCLUSION

The present review compiles Siddha formulations indicated for *Yoni Puttru*, highlighting the extensive use of herbal, herbo – mineral, and mineral based therapeutics in classical literature. The predominance of *Rasa* – based (mercurial) formulations, along with diverse dosage forms such as *Chooranam*, *Chenduram*, *Kuligai*, *Mezhugu* and *Parpam*, reflects the advanced pharmaceutical principles and therapeutic strategies employed in Siddha medicine for managing chronic and complex diseases like cancer. Despite strong traditional evidence and emerging scientific validation, there remains a critical need for standardisation, safety evaluation, and defined clinical studies to establish the efficacy and safety of these formulations in modern oncology. Future research focusing on mechanistic studies, nanoparticle characterization and clinical translation could provide valuable insights into the role of Siddha medicine as a complementary approach in the management of cervical cancer.

REFERENCE

1. International Agency for Research on Cancer, **GLOBOCAN 2022: Cancer Today**, Available at: <https://gco.iarc.who.int/today/> (accessed 2022).
2. Singh K, Grover A & Dhanasekaran K, Unveiling the cancer epidemic in India: A glimpse into GLOBOCAN 2022 and past patterns, *Lancet. Reg., Health Southeast Asia*, 2025; 34. <https://doi.org/10.1016/j.lansea.2025.100546>.
3. Bhatla N, Aoki D, Sharma DN & Sankaranarayanan R, Cancer of the cervix uteri: 2021 update, *Int. J. Gynaecol. Obstet.*, 2021; 155: 28–44. <https://doi.org/10.1002/ijgo.13865>.
4. Singh K, Grover A & Dhanasekaran K, Cervical cancer burden in India: A descriptive epidemiological study and policy insights, *Glob. Epidemiol.*, 2025; 10: 100233. <https://doi.org/10.1016/j.gloepi.2025.100233>.
5. *Yugi Munivar Vaithiya Sindhamani Perunool 800*, Arulmigu Pazhani Thandayuthaswamy Thirukkivil, 1976.
6. *Siddha Vaidya Thirattu*, Indian Medicine & Homeopathy, 1998.
7. *Bhogar 700*, Rathina Nayagar and Sons, 1993.
8. *Pulippani 500*, Malarmagal Vilasam Press, 1951.
9. *Agasthiyar Chenduram–300*, Thamarai Noolagam, 1998.
10. *Agasthiyar Vaidya Kaviyam (1500)*, Tamil University, 1994.
11. *Aathmaratcha Amirthamennum Vaithiya Saara Sangeeraham*, Rathina Nayagar and Sons, 2006.
12. *Agasthiyar Vaidya Rathina Churukkam–360*, Rathina Nayagar and Sons, 1993.
13. *Veera Maamunivar Vaagada Thirattu*, Parts 1 & 2, Thamarai Noolagam, 1994.
14. *Agathiyar Paripuranam–400*, 2nd edn, Thamarai Noolagam, 2000.
15. *Agathiyar Kanma Kaandam–300*, Thamarai Noolagam, 1995.
16. *Chikicha Rathna Deepam*, Part 2 – Vaidya Chinthamani, Rathina Nayagar and Sons, 2007.
17. *Agasthiyar Vaidya Vallathy*, CCRAS, 1980.
18. Sridharan K, Nattamai K, Lissy TT, Justinraj S & Dhiraviam KN, Apoptotic effects of Rasagandhi mezhugu metabolites on HeLa cells: In vitro and in silico analysis, *J. Drug Res. Ayurvedic Sci.*, 2025; 10(6): 443–457. https://doi.org/10.4103/jdras.jdras_333_23.
19. Manjari, A review on therapeutic effect of Rasakarpoora Kuligai - Siddha herbomineral formulation, *Int. J. Curr. Res. Med. Sci.*, 2018; 4.

20. Gandhi I & Meenakshi M, In vitro cytotoxicity and apoptosis inducing effect of Vallarai Kirutham with Rasa Parpam in HeLa cell lines, *Int. J. Ayurvedic Med.*, 2024; 15: 117–121. <https://doi.org/10.47552/ijam.v15i1.4261>.
21. Ravichandran M & Mubarak H, in vitro anti-proliferative, antioxidant and phytochemical screening of a Siddha drug Chittiramoola Kuligai (CMK), *World J. Pharm. Pharm. Sci.*, 2014; 3: 1117–1127.
22. Carolin P, Mariappan A, Meena Kumari R. In vitro Evaluation of Anticancer Activity of Karanthai Legium (Kl) – A Siddha Medicine for Cervical Carcinoma against Hela Cell Line by MTT Assay. *Research Journal of Pharmacy and Technology*, 2024; 17(2): 807-0. doi: 10.52711/0974-360X.2024.00125
23. Cytotoxic activity of *Indigofera aspalathoides* (Vahl.) extracts in cervical cancer (HeLa) cells: Ascorbic acid adjuvant treatment enhances the activity, *Phytomedicine Plus*, 2021; 1(4): 100142. <https://doi.org/10.1016/j.phyplu.2021.100142>.
24. José C.J.M.D.S. Menezes, Marc F. Diederich, Bioactivity of natural biflavonoids in metabolism-related disease and cancer therapies, *Pharmacological Research*, 2021; 167: 105525, (<https://www.sciencedirect.com/science/article/pii/S1043661821001092>)
25. Ansari IA, Ahmad A, Imran MA, Saeed M & Ahmad I, Organosulphur compounds induce apoptosis and cell cycle arrest in cervical cancer cells via downregulation of HPV E6 and E7 oncogenes, *Anticancer Agents Med. Chem.*, 2021; 21(3): 393–405. <https://doi.org/10.2174/1871520620999200818154456>.