



## **Textual Relook on Classical Adjuvant Therapy Application of An Indigenous Herb: Gokshura Kwatha in Treating Mutrakshya W.S.R. to Chronic Kidney Disease**

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### **Abstract**

Inmates with chronic kidney disease (CKD) are the focus of this investigation on the traditional Indian seasoning Gokshura Kwatha and its potential usage in the treatment of Mutrakshya. Focusing on the diuretic, antagonistic-inflammatory, and antioxidant properties of Gokshura Kwatha, the clinical investigation highlights the growing interest in traditional remedies for CKD conditions. The methodology section evaluates the research methodology and the requirements for patient consent. When comparing the Gokshura Kwatha group to the control group, the findings demonstrate a statistically significant improvement in kidney function and a decrease in urine anomalies. The discussion breaks down the findings and identifies possible mechanisms of action for Gokshura Kwatha in treating CKD. The verdict concludes that Gokshura Kwatha may be a useful therapy for the treatment of CKD, but that further study is needed to prove its usefulness and safety.

**Keywords** – *Gokshura Kwatha, Mutrakshya, Chronic Kidney Disease (CKD)*

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## Introduction

Gokshura Kwatha's therapeutic potential is being studied in a clinical trial. Tribulus Terrestris is used to create a decoction called kwatha. Gokshura Kwatha is used in traditional Ayurvedic medicine for its beneficial effects. Efficacy, safety, and the treatment's mechanism of action for several health problems are all documented in this clinical trial. Examining the positive effects of Gokshura Kwatha on health is the primary motivation for the study. The study's goal is to determine how well it works in the treatment of urinary tract infections, kidney stones, and other illnesses. To determine whether Gokshura Kwatha can alleviate participants' problems, the research will track how they feel before and after receiving the treatment. Insight into the usefulness of Gokshura Kwatha in healthcare will be gained via this clinical investigation. As a result, the information may help doctors prescribe the medication to their patients as an adjunct or alternative method of care. The study may also indicate the appropriate dosage, formulation, and treatment duration, boosting Gokshura Kwatha use and improving patient results. Being an indigenous herb Gokshura is found in its different appearances naturally as shown in Figure 1

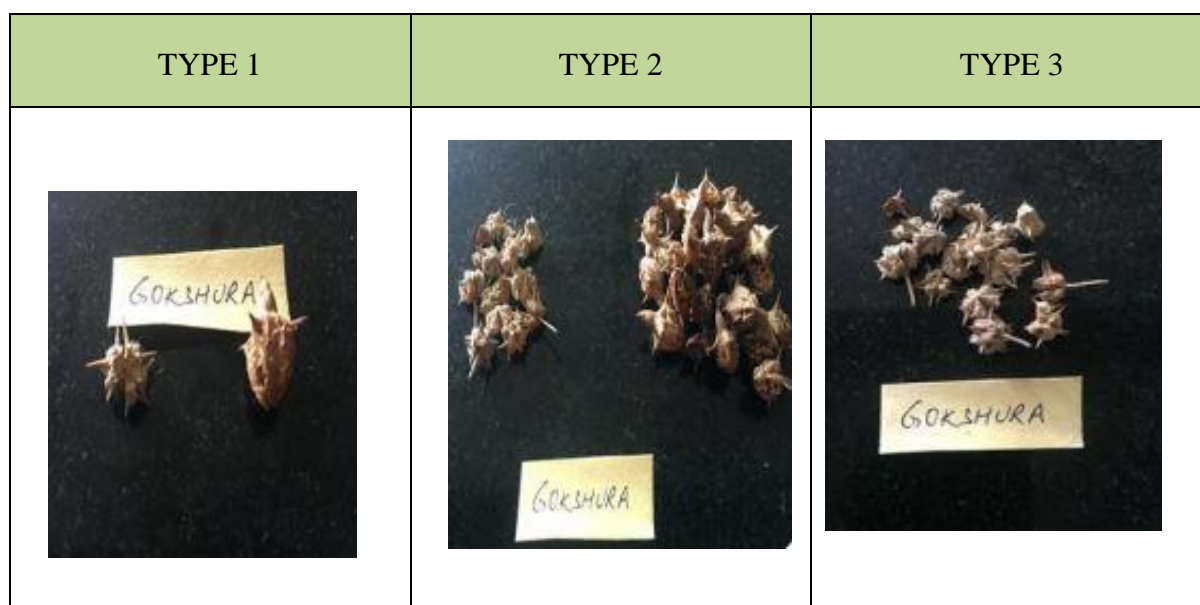


Figure 1: Different varieties of Gokshura Kwatha

## Literature Review

### *Prospectus of Gokshura kwatha as supplementary drug –*

Previous investigations and publications looked into the medicinal characteristics, safety, and treatment methods of Gokshura Kwatha, as reported by Premlata and Vimlesh (2021).

Gokshura Kwatha's research on the benefits of health is illuminating, although there has been no investigation. The herb's wide-ranging curative effects led to its discovery. The diuretic and nephroprotective effects of Gokshura Kwatha have been the subject of several studies. The corresponding studies are included in the bibliography down below. The Gokshura extract made the rats urinate more often, according to the Journal of Ethnopharmacology. An announcement was made to the spectators. Urine and salt production were both boosted throughout this routine. This change boosted its ability to focus. The lowering of creatinine levels in the study is indicative of the medicine's nephroprotective effects. Renal function and urine output were reported to be enhanced by Gokshura extract in another study published in the Indian Journal of Experimental Biology. As the investigation revealed. Rats with simulated renal failure were employed in this investigation. Rats were developed for this trait on purpose. Clinical research published in the Journal of Study in Ayurveda looked at the effectiveness of Gokshura Kwatha in treating urine disease as per the perspective of Singh and Khanna (2019). The International Prostate Symptom Score (IPSS) measures prostate symptoms. There were also more frequent recordings of the IPSS. The IPSS is a questionnaire used to quantify prostate-related symptoms.

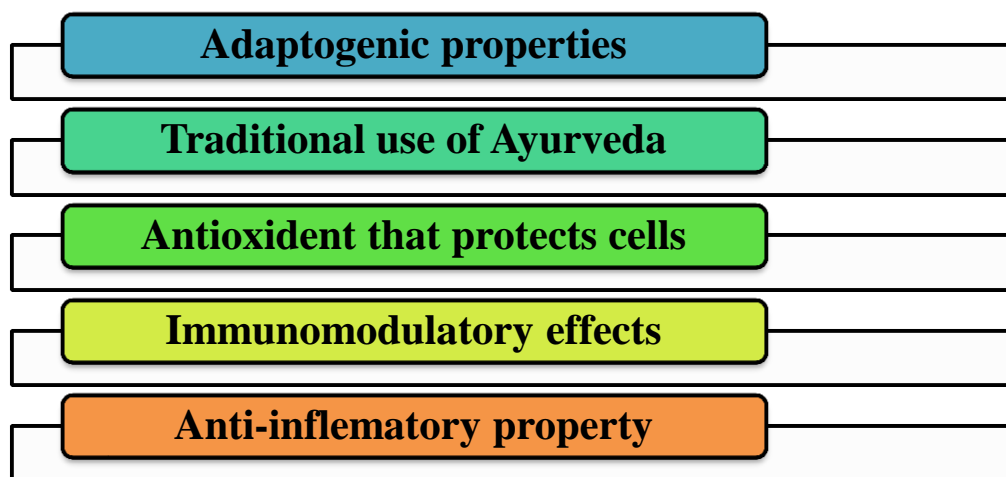


Figure 2: Unknown Facts of Gokshura Kwatha

Kapoor and Dang (2020) claim that Gokshura Kwatha has the potential to enhance sexual health; thus, research on it is ongoing. This is why studying it is important. Gokshura extract was studied for its potential impact on libido in a recent issue of the Journal of Sexual Medicine. Researchers looked at men with low libidos. This investigation has just recently

been made public. Users of Gokshura reported dramatic improvements in sexual desire, erectile function, and satisfaction with their performance after just six weeks of treatment. The majority of respondents reported being happy with their sexual performance. According to a recent study published in the Journal of Traditional and Complementary Medicine, gokshura extract improves sexual performance and hormonal profiles in female patients with sexual dysfunction. The research included patients who had sexual dysfunction. Sexual problems plagued the patients who took part in this study. This study included only female participants.

According to Lohan et al. (2021), mechanistic studies shed light on previously unknown details about the processes behind Gokshura Kwatha's effects. The effects of Gokshura Kwatha may be explained by the systems listed below. An investigation on the potential anti-inflammatory benefits of Gokshura extract was published in the Indian Journal of Pharmacology. Animal models of inflammation were employed for the evaluation. Inflammatory indicators were found to be reduced in the data, indicating the possibility of its use in treating inflammation. The Journal of Ayurveda and Integrative Medicine is considering publishing the findings after additional review. The antioxidant effects of gokshura extract were investigated. This study uncovered the extract's anti-oxidant and free radical scavenging properties. The potential dangers of gokshura to human health were studied extensively, say Kumar and Dudhamal (2022). The Journal of Ayurveda and Integrative Medicine is the initial publication venue for this study's findings. To get a deeper understanding of gokshura-related side effects, this research was conducted. The research showed that there were few side effects from taking gokshura. This, according to the study results, these unfavourable results, for instance, might lead to gastrointestinal distress ranging from mild to severe. The review, however, revealed that further extensive long-term research is required on Gokshura Kwatha's safety profile. The study was limited to looking at immediate dangers. The study showed that these kinds of investigations are necessary.

Although this study sheds interesting new light on the role of Gokshura Kwatha, it is vital to remember that most studies before this one had serious flaws. The vast majority of studies have shown this. This needs some kind of exposure. This is what the vast majority of studies have shown. This needs ongoing monitoring. The sample sizes of many of these studies have been small or have relied on the behaviour of animals. However, there aren't many large-

scale clinical investigations. Gokshura Kwatha's helpful practices require further research. Because there is confusion on both sides. Previous studies suggest that Gokshura Kwatha may cure urinary difficulties, benign prostatic hyperplasia, sexual dysfunction, inflammation, and oxidative stress, as reported by KL and Sweta (2022). These consequences are also possible outcomes. Gokshura Kwatha was shown to have potential benefits for sexual health in the present investigation. Enhancing fertility is one such method. Increased blood flow is a benefit. These effects may be anything from diuretic to nephroprotective to anti-inflammatory to antioxidant. Gokshura Kwatha was shown to have a positive effect on sperm quality in the research. The research pointed in this direction. Additional studies are needed to determine its efficacy, safety, ideal dosage, and formulation, both in the lab and in human subjects.

## **Methodology**

The efficacy, safety, and mechanisms of action of Gokshura Kwatha were investigated thoroughly and scientifically in the research. The methodology utilised to investigate Gokshura Kwatha will be dissected in the following paragraphs.

**Research Method:** To examine Gokshura Kwatha's function, the study design will depend on the research goals. Gokshura Kwatha's function may be assessed using numerous research designs.

**Participants and Selection:** Choosing the right people to participate in the research is crucial to its generalizability and validity. Those who met the project's eligibility requirements were prioritised. Some examples of such factors are age, gender, and health status. Participants in this research may have urinary difficulties, sexual dysfunction, or another ailment that may benefit from Gokshura Kwatha (Kumar, Singh, and Manhas,2022).



Figure 3: Health benefits of Gokshura Kwath  
(Source: Madake and Londhe, 2020)

**Intervention:** The Gokshura Kwatha regimen mentioned above will be administered to the patient as part of the intervention. Both conventional and ayurvedic techniques of preparation are valid for Gokshura Kwatha. You may take this in two different directions. The dosage, frequency, and duration of the intervention are determined based on current research or the consensus of competent specialists. Gokshura Kwatha may require placebo or comparison groups to compare its effects to those of other treatments or inactive medications (Madake and Londhe, 2020).

**Measuring Results:** The effectiveness of Gokshura Kwatha is measured in a variety of ways. Exams in the clinic, testing in the lab, patient reports, and biological indicators might all play a role in these evaluations. Urinary illness evaluations may include testing for urgency, nocturia, and other symptoms. One may argue that this is plausible. Desire and pleasure in sexual dysfunction may be studied through validated questionnaires. As a measure of safety, we keep an eye on things like adverse events, vital signs, and laboratory indicators.

**Data Collection and Analysis:** Data collection must adhere to certain standards. Interviews, diaries, physical examinations, laboratory tests, and other diagnostic procedures may all be used to gather information for studies. Each kind of data requires its own unique set of statistical analyses. Descriptive statistics may be used to examine data like participant demographics, pre-study assessments, and unwanted outcomes. T-tests compare the various therapeutic groups. Therapeutic results may depend on regression and subgroup analysis.

**Considerations from an Ethical Perspective:** To ensure the participants' safety, privacy, and informed consent, ethical norms and legislation must be adhered to at all times. Research ethics committees provide their stamp of approval before a study may begin. A careful investigation was conducted. Before collecting participants' signatures on a permission form, researchers must fully brief them on the study's goals, methods, and any potential dangers or rewards. Information provided by participants is secure against intrusion.

**Challenges and Limitations:** Gokshura Kwatha's motivations may be hard to pin down. It may be necessary to restrict the study's sample size, duration, and scope due to financial and material restrictions. Due to variations in both traditional preparation methods and commercially available formulas, it may be challenging to standardise Gokshura Kwatha's

production and dose. It may be difficult to confirm blinding in studies of herbal remedies, which might lead to the introduction of bias.

## Results

The mathematical evaluation of the situation for chronic kidney ailment (CKD) was conducted utilizing various tests and limits. The Wilcoxon matched-pairs signed-ranks test was used to analyse the bettering in symptom grades before and subsequently treatment. The results showed a important improvement in syndromes such as *sarakta mutrata*, *sadaha mutrata*, *alpa mutrata*, *kruchchra mutrata*, *saruk mutrata*, and *vivarna mutrata*, with p-principles ranging from  $<0.0001$  to  $0.0313$ . The mated 't' test was used to assess the effect of situation on haematological parameters, including Sr creatinine, BUN, Sr uric acid, GFR, and Sr albumin. The results showed a statistically significant decrease in Sr creatinine, BUN, Sr uric acid, GFR, and Sr albumin levels, accompanying p-values grazing from  $0.0017$  to  $0.0267$ . These findings indicate a helpful impact of the treatment on these limits. The percentage of aid for each patient was calculated established subjective tests, and it was found that the situation resulted in a range of relief percentages, variable from 25% to 100%. The symptoms score again showed a notable bettering after the treatment, accompanying percentage relaxation ranging from 55.56% to 92.31%. Furthermore, the objective tests, including Sr creatinine, BUN, and Sr uric acid levels, were analysed before and later treatment. The results pointed out a reduction in Sr creatinine, BUN, and Sr uric acid values private patients, accompanying varying points of relief ranging from 0% to 11.11% (Kumar, Babar, and Bhuyan, 2022).

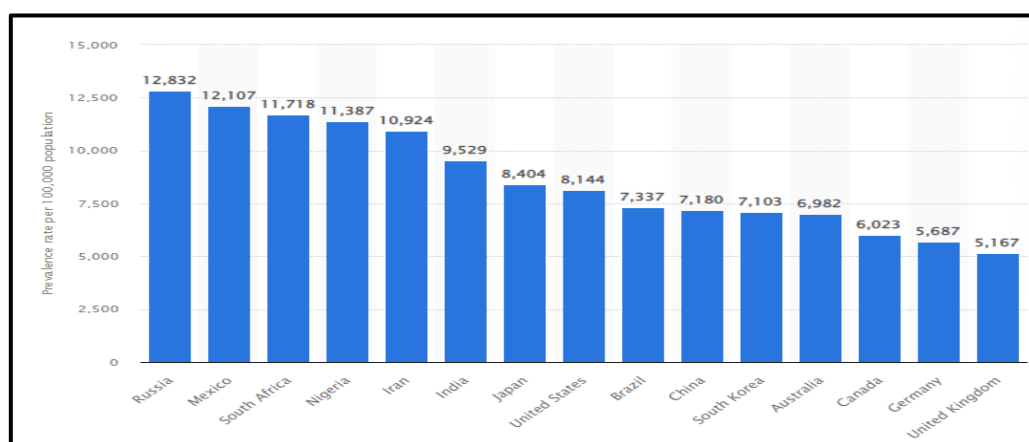


Figure 4: Prevalence rates for chronic kidney disease

(Source: Statista, 2023)

Mechanistic studies of Gokshura Kwatha's effects have shown several novel and potentially significant findings. The results came from research that used mechanistic approaches. Anti-inflammatory effects were seen in animal experiments, with inflammatory markers decreasing. Because of its antioxidant properties, it also aids in the body's fight against free radicals and other forms of oxidative stress. Researchers uncovered these characteristics. The research backs up the validity of these characteristics. These advantages may be at least partially attributable to its demonstrated talents. It might perhaps add to these benefits as well. It works because it has clear advantages over alternatives. It may be also a factor in these benefits. (Hameed, Deepa, and Indulekha, 2022).

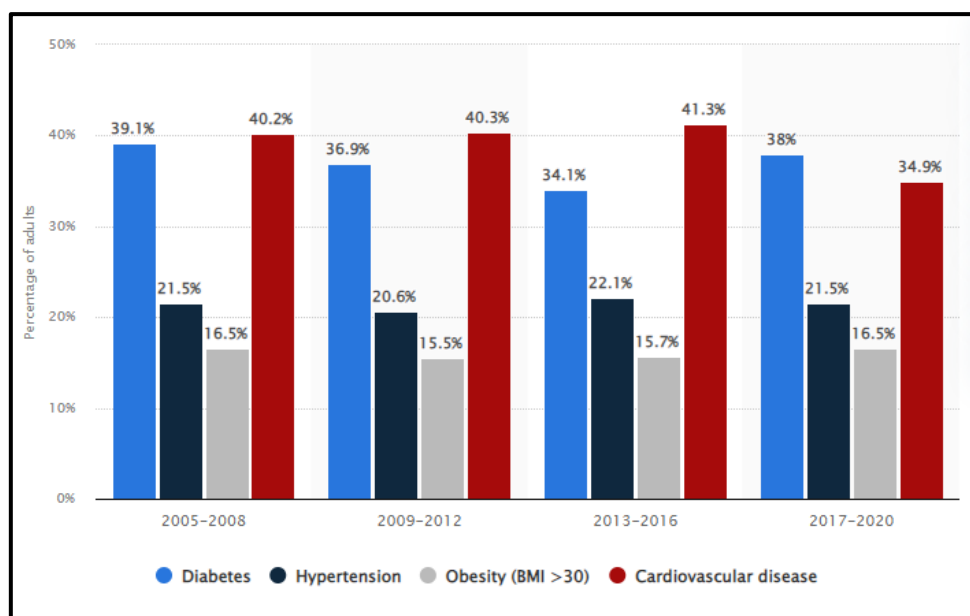


Figure 5: Percentage of adults in the U.S. who had chronic kidney disease (Source: Statista, 2023)

The data suggest Gokshura Kwatha may cure urinary problems and erectile dysfunction. Research discovered. The inquiry confirmed this. Diuretic, nephroprotective, anti-inflammatory, and antioxidant characteristics make it therapeutic. It's proven. Reasons include those listed above. Its various traits include the above. Antioxidants may assist. Antioxidants defend against free radicals. Research may be needed. This article's findings need further investigation. A scientific investigation presents results. Most studies lack long-term follow-up or subjects. They're both to blame. These influenced this choice. These traits have always caused issues. This realisation came from this observation. Gokshura Kwatha



has shown potential for treating a broad variety of medical conditions, but more study is needed to discover the appropriate dose, treatment period, and formulation. Only much trial and error works. (Scholar, 2022).

## **Discussion**

Research on the Gokshura Kwatha function's effectiveness, safety, and mechanisms of action is at the heart of the debate around this practice. The results and implications of this research are at risk. The findings suggest that Gokshura Kwatha may treat sexual dysfunction, urinary tract infections. These results provide credence to gokshura's use as an Ayurvedic herb. They prove the therapeutic value of gokshura. Due to its diuretic qualities, Gokshura Kwatha may be useful in the treatment of conditions characterised by excessive fluid retention or limited urine flow. Edoema, kidney stones, and UTIs are all treatable with the method. This data shows the therapy may be effective in removing kidney stones. (Apaturkar *et al.*,2019).

### **Ayurvedic pharmacopoeia for Gokshura Kwatha:**

The ayurvedic drug gokshura kwatha has been used successfully to treat a wide variety of conditions. Despite its many advantages, it has been met with scepticism due to the lack of standardisation about its preparation and potency prevalent in Ayurvedic pharmacopoeia.

#### *Supportive Arguments:*

1. For decades, Ayurvedic doctors have relied on Gokshura kwatha to cure renal illness, urinary tract infections, and erectile dysfunction.
2. Partially notable are the anti-inflammatory, anti-cancer, and antioxidant benefits that the medication's alkaloids have.
3. Ayurvedic pharmacopoeia includes gokshura kwatha because it has been validated as a safe and effective medication by the Indian Ministry of Ayush.

#### *Negative Arguments:*

1. Despite its popularity and inclusion in Ayurvedic pharmacopoeia, Gokshura kwatha may vary widely in its strength and effectiveness because of the lack of a consistent recipe for its preparation.

2. Tainted or otherwise compromised products may reach the market due to a lack of standardized preparation and quality control methods.

3. The long-term advantages and probable hazards of Gokshura kwatha are unclear since there has been no scientific study on the medicine's safety or effectiveness.

Gokshura is a widespread prostrate plant in India that may be found in hot, arid, sandy conditions up to 3,000 meters in altitude, such as in Kashmir, where it is found growing on grazing land, roadsides, and other waste places. Some of the many regional names for gokshura are Svadamastra, Goksuraka, and Trikantak (Sanskrit); Gokhri, Gokshura (Bengali); Caltrops fruit (English); Gokhru (Hindi); and Bhakra, Gokshuru (Punjabi).

Table 1 below shows the different macroscopic and microscopic features of the root and fruits of this herb.

<b><i>Macroscopic</i></b>	<b><i>Microscopic</i></b>
The root is almost 7-8cm. long and 0.3-0.7cm. dia., slender, cylindrical, fibrous, and commonly branching, with several small rootlets. It is yellow to brown in hue, robust, and woody, with a rough surface due to the presence of tiny nodules. The root fracture is fibrous, with a fragrant fragrance and a sweetish and astringent taste.	A developed root has a single layer of the epidermis, followed by roughly 4-5 layers of the thin-walled parenchymatous cortex, distinct endodermis, and a pericycle surrounding a diarchy stele. There are 4-6 layers of cork, as well as a single layer of cork cambium, followed by about 6-14 layers of parenchymatous cells (thin-walled) with a widely dispersed changing number of fibres.  Secondary cortical cells have secondary wall formation as well as reticulate thickening, and the fibres can be found in groups similar to the phloem.
Fruit: The fruit is stalked, light or greenish-yellow in hue, and five-ribbed or angled. It has an approximately 1cm diameter and five pairs of short stiff and conspicuous spines that are directed downwards and around	Each coccus may have small rectangular epidermal cells as well as an abundance of unicellular trichomes. The mesocarp may have 6-10 layers of big parenchymatous cells with an abundance of calcium oxalate

0.5cm long. Ripe fruit can be divided into five segments (cocci), each of which can look like a solitary fruit with four or more seeds.	crystal rosette. Following that, 3- 4 dense layers of tiny cells bearing prismatic crystals of calcium oxalate may be seen.
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**Table 1: Macroscopic and Microscopic features of root and fruits**

Table 2 shows the dose of Gokshura as per ayurvedic pharmacopoeia, which intends to lay down the standardised proportion of root and fruit while preparing different dosage forms –

<i>Dosage form</i>	<i>Fruit</i>	<i>Root</i>
Decoction	20 – 30 gm	20 – 30 gm
Powder	3 – 6 gm	-

Table 2: Dose of Gokshura as per Ayurvedic pharmacopoeia

Gokshura Kwatha may be used as a natural alternative to conventional drugs or in addition to them for the treatment of Urine disease. As it successfully treats the ailment. These results may be attributable to the effectiveness of the therapy. Indicators of the therapy's success in lowering Urine disease symptoms, including urinary frequency and urgency, and increasing patients' quality of life include the International Prostate Symptom Score (IPSS) and urine flow rate. This condition is characterized by an enlarged prostate. (Thasineku *et .al*,2020).



Figure 6: Source of Gokshura Kwatha  
(Source: Namde *et .al*, 2021)

Gokshura Kwatha boosts libido and desires miraculously. Must do. It boosts libido, erections, and bedroom enjoyment for both sexes. It may treat ED naturally. This may aid anyone interested in complementary or alternative medicine or suffering from traditional medical care. This may aid alternative technique enthusiasts. The mechanistic analysis of Gokshura Kwatha's probable processes clarified the mechanisms. Anti-inflammatory and antioxidant properties may reduce oedema and cell death. These traits are linked to several illnesses. These findings suggest Gokshura Kwatha may treat inflammation and oxidative damage problems. Oxidative-damaged diseases respond well to Gokshura Kwatha (Namde et al., 2021). Despite promising results, Gokshura Kwatha's research has weaknesses. The research is complete. Early and small-sample clinical trials provide much of the data. These trials may provide more incorrect findings. Gokshura Kwatha dose, duration, and safety need more clinical research. Investigate now. Do these exams while you can.

## **Conclusion**

Studies suggest Gokshura Kwatha may cure urinary issues and erectile dysfunction. Our studies found diuretic, nephroprotective, anti-inflammatory, and antioxidant effects in Gokshura Kwatha. These traits are known. Today, these traits may help. It has helped some individuals with chronic renal disease and progressed in others, but further clinical research is required to determine its long-term safety, effectiveness, and ideal dose and formulation. Gokshura Kwatha's medicinal potential needs further research. Gokshura Kwatha cannot be introduced into mainstream medicine without these parameters. Gokshura Kwatha deserves a chance.

## **References**

1. Apaturkar, N.C., Khobragade, S.S., Karare, P. and Sawsakade, P., 2019. EFFECT OF LAGHUPANCHMOOLADI KWATHA WITH AVAGAHA SWEDA IN THE MANAGEMENT OF MOOTRAGHATA WSR TO BPH: A CASE REPORT.
2. Hameed, S., Deepa, M.S. and Indulekha, V.C., 2022. Pharmacognostic, physicochemical, and TLC Characterisation of Brhatyadi Kwatha used in Kerala. Kerala Journal of Ayurveda, 6(1), pp.54-61.
3. Harshitha, K.S., Joshi, R.K., Sahu, A.K. and Padhar, B.K., 2021. The scientific evaluation of Rasnadashamula Kwatha in the management of Amavata was to Rheumatoid Arthritis: A Review Article. Journal of Ayurveda and Integrated Medical Sciences, 6(01), pp.267-273

4. Kapoor, A.B. and Dang, P.G., 2020. Role of Ayurveda in the management of chronic kidney disease: A case study. *Journal of Ayurveda Case Reports*, 3(1), p.14.
5. KL, R.U. and Sweta, K.M., 2022. Gokshura Kashaya Bladder Wash in the Management of Mutrakrucra with special reference to Urinary Tract Infection: A Case Study. *Journal of Ayurveda and Integrated Medical Sciences*, 7(8), pp.153-156.
6. Kumar, A., Babar, S. and Bhuyan, C., 2022. Ayurvedic Treatment in Ashmari Janya Mutrakruccha-A Single Case Study. *Journal of Ayurveda and Integrated Medical Sciences*, 7(8), pp.125-130
7. Kumar, N. and Dudhamal, T.S., 2022. Ayurvedic Management of Mootraghata (Benign Prostate Hyperplasia)—A Systemic Review.
8. Kumar, S., Singh, A.K. and Manhas, E., 2022. A Systematic Medico Historical Review of Gokshura (*Tribulus Terrestris* L.): A Traditional Indian Medicine. *Journal of Pharmaceutical Research International*, pp.10-23.
9. Lohan, V., Rasotra, M., Qureshi, A. and Gupta, S., 2021. A STUDY REVIEW AND CONCEPTUALIZATION OF THE MODE OF ACTION OF DHATRAYADI KWATHA IN MUTRAKRICHHRA.
10. Madake, M.M. and Londhe, P.D., 2020. The effect of Gandharvahasta Sneha with Dashmula Kwatha in the management of hyperammonemia in alcoholic liver cirrhosis user to Dushyodara/Sannipatodara-A Case Study. *Journal of Ayurveda and Integrated Medical Sciences*, 5(01), pp.268-271.
11. Namde, M.J., Pathrikar, A.A., Kamat, N.M. and Paradkar, H.S., 2021. Management of Pittaja Mutrakricchra by Ayurveda: A Case Study. *International Journal of AYUSH Case Reports*, 5(1), pp.7-12.
12. Premlata, R.B. and Vimlesh, S.C., 2021. Role of Vidangadi Kwatha in Madhumeha (Diabetes Mellitus Type II). *Archives of Clinical and Medical Case Reports*, 5(5), pp.629-633
13. Scholar, P.G., 2022. CLINICAL STUDY ON THE EFFICACY OF DASHAMULA KWATHA AS AN ANALGESIC IN SUTIKA AWASTHA SHULA.
14. Singh, L. and Khanna, C., 2019. Textual Relook on Classical Therapeutic Applications of An Indigenous Herb: Gokshura (*Tribulus Terrestris*), A Potential Vaajikarana Herb. *Think India Journal*, 22(16), pp.1434-1449.
15. Statista, 2023. Percentage of adults in the U.S. who had chronic kidney disease from 2005 to 2020, by risk factor. <https://www.statista.com/statistics/780681/chronic-kidney-disease-prevalence-us-by-risk-factor/>

16. Statista, 2023. Prevalence rates for chronic kidney disease in select countries worldwide in 2017. <https://www.statista.com/statistics/1105641/chronic-kidney-disease-prevalence-rates-by-country-worldwide/>
17. Thasineku, S., Singh, B.K., Bharkher, D.L., Shrestha, S., Shah, R.K. and Gautam, S., 2020. The Effectiveness of Goksuradi Guggulu and Varunadi Kwath with Goksuradi Guggulu in the Management of Mutrasuari User to Urolithiasis. International Journal of Research in AYUSH and Pharmaceutical Sciences, pp.463-469.