

Research Work Done on Gomutra Preparations:

1. Kamdhenu Urine (Fresh) Therapy in Cancer Patients: A Holistic Approach

(Abstract of oral paper Presentation)

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Abstract -

Study conducted under the supervision of the ethical committee, Raj. Go Seva Ayog (Raj. Govt) at Raj. Go seva Sangh, Rani Bazar Choraha, Bikaner (Raj.)

Modern Medical Science includes combined modality (Including surgery chemotherapy & Radiotherapy) of cancer management. In case of locally advanced cancer, selection of the modality is difficult. Most of the time treatment is palliative. It aims to give a good quality of life with life prolongation. Kamdhenu Urine was widely being used as medicine since human life & Cow on earth. Ayurved has a lot of literature about it. Fresh as well as ark (pure or with herbal medicines) has been used & still people are using.

Conclusion – Kamdhenu Urine therapy decreases hematological toxicities of chemotherapy & radiation induced toxicities. Also a patient feels over all well being with relatively good quality of life & better symptom management. Over all survival is not much inferior to CT ± RT ± surgery treated patients, thus the cost of treatment is almost negligible with kamdhenu Urine therapy & easily available for rural patients. Some acute problem can be managed by Allopathy. Overall general management is possible at home. This is a holistic approach to treat the advanced cancer patients without heavy financial expenditure.

2. Stage – IV Oro Pharyngeal Carcinoma Undergoes Complete Regression

(Clinical Study By Dr. Varmudy S.S)

Abstract:

Carcinoma of Tonsil is most Radiosensitive of all the tumors in the oropharynx. However irradiation cures none in stage IV. The survival rate of combined surgery and radio therapy for stage IV carcinoma of tonsil, with partial response to radiotherapy, cured of her disease by ‘Amrutha Sara’: Cow’s urine distillate (Gomutra Arka) – an Ayurvedic medicine as a carcino chemotherapeutic agent.

Conclusion: An alternative treatment when allopathy and homeopathy have failed.

Gomutra has been prescribed in Ayurvedic practice for thousands of years for many diseases like, digestive tract, cardiac, renal and eye problems, epilepsy, vitiligo, diabetes mellitus, arthritis and to cause weight loss. These medicinal effects are possibly due to the cow’s Consumption of various herbs of medicinal value when it feeds on the hillside and subsequent transformation of these compounds into biologically active substances. It is quite possible that different extracts of cow’s urine would have different efficacy due to differential consumption of herbs by the cows, depending upon their geographic location. The concentration of the components of Gomutra required (Standardisation) for different diseases including Cancer, is yet to be known. Till that is achieved, the results will vary, and Gomutra should be advised with caution, as the line of treatment. Arka may find a place as a Carcino Chemotherapeutic agent without side effects in future. This needs more research. Further case

studies involving the successful use of Gomutra Arka, are to be brought to medical attention and the benefits to be passed on to the general population.

Some diagnostic investigations:

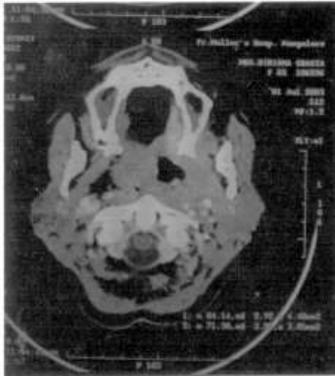


Fig1 (1/7/2003)
CT-Scan :



Fig 2



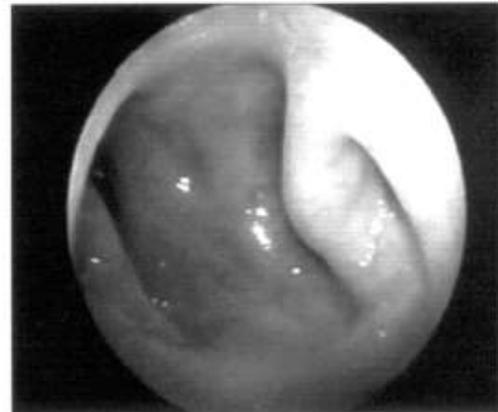
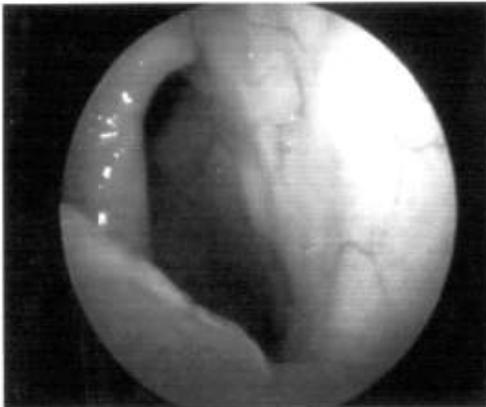
Fig 3

Fig1: Large tumour in the retro molar and tonsillar region(L) extending into pterygoid fossa.

Fig 2: Infiltration into pterygoid muscles.(left)

Fig 3: Showing metastatic lymph gland(left)

Follow-up investigations (post cow urine therapy): (15/9/2004)



1. Endoscopic examination of oral cavity, oropharynx, nasopharynx showed no evidence of malignancy. Surfaces of prior lesion were smooth and clear with neo vascularisation.

2; X-Ray chest revealed no radiological lesions.

3. USG abdomen showed no secondaries.

4. CT-Scan with contrast studies showed

- a. No evidence of growth.
- b. Regression of secondaries in left lymph glands.



CT-scan with contrast (follow up)

3. Cow Urine Arka– Therapy for non-specific Leucorrhoea

(Clinical Study By Dr. Varmudy S.S)

Leucorrhoea (Vaginal Discharge) in females may be physiological or pathological. If pathological its cause may be specific or non-specific. Leucorrhoea is one of the common causes for chronic vascular headache and cross infection in otorrhoea and nasal vestibulitis. A study to verify the anti-microbial effect of cow urine distillate in different age groups presenting with chronic vascular headache, chronic recurrent ear discharge and chronic recurrent nasal vestibulitis along with Leucorrhoea was done.

With proper explanation and consent from both adults and accompanying persons or parents in case of children, vaginal swab study of 65 patients was done.

Dose of Cow-Urine Arka: 10 ml of Indian breed Cow-urine Arka along with equal amount of milk on empty stomach two times a day for 3 months.

Conclusion: Cow Urine Arka (Panchagavya) can be a simple, non- toxic medical treatment for vascular headache, chronic otorrhoea and chronic nasal vestibulitis due to Leukorrhoea.

4. Studies on Antimicrobial Activity of Cow Urine

Misal S.P., Post graduate teaching dept. of Microbiology, RTMNU, Nagpur (2007-08).

Keeping in view the enormous role of cow urine in medicine, a scientific experiment was done to study the antimicrobial activity of cow urine. Cow urine filtrate & distillate were tested against human pathogenic bacteria & fungi. Antibiotic & antifungal drugs were taken for comparative studies.

Cow urine filtrate & distillate were checked for its activity by agar well diffusion method against *S. aureus*, *E.coli*, *B. subtilis*, *B.megaterium* & *C. albicans* & it was found that filtrate & distillate were active against all above micro-organisms.

To determine minimum inhibitory concentration different concentrations of filtrate were used against the above microorganisms by cup & well method.

E.coli which was resistant to Rifampicin & Clindamycin antibiotics was found sensitive against cow urine.

Cow urine showed activity against *S. aureus*, *B. subtilis*, *B.megaterium* though they were sensitive to antibiotics used.

Also, *C. albicans* was found to be resistant against antifungal agent (flucanazole & Nystatin) but was susceptible to cow urine.

Cow urine is natural, easily available, harmless, beneficial compound. It is a good substitute for allopathic formulations without any side effects.

5. Cow Urine as an Antimicrobial Agent

Kumari Namrata Y. Mahurkar, Dessertation for MSc Microbiology Shri Shivaji Education society, Amravatis Science college, Nagpur.

A study was conducted to study the effect of cow urine on microbes. It was found that gram negative, gram positive bacteria & Fungi were significantly inhibited by concentrated cow's urine.

Some of the constituents of urine which are related to microcidal properties are

Halogenated phenol	- Antifugal.
2 Phenyl Phenol	- Antimicrobial, Antiviral
Carbolic acid, Manganese	- Antibacterial, Pesticide.
Aurum Oxide	- Antimicrobial, Antitoxic.

6. Immunomodulation With Kamdhenu Ark In Mice

Chauhan R.S., Singh B.P., and Singhal L.K. (Department of Pathology, College of Veterinary Sciences, G.B.Pant University of Agriculture And Technology, Pantnagar, Uttaranchal)

Panchaygavya therapy plays an important role in ayurvedic system of medicine. In the literature it has been claimed to produce immunopotentiating effect in the body. A study was carried out on 20 mice divided into 2 groups to investigate the immunomodulatory properties of “Kamdhenu Ark” in mice. group I was kept as control while group II mice were given 1 ml Kamdhenu Ark in water for a period of 90 days. Results indicated that there was increased B & T- lymphocyte blastogenesis, increased IgG, IgA antibody titres in mice treated with Kamdhenu Ark in comparison to controls. The study concluded from the present investigation that the ‘Kamdhenu ark’ therapy exerts its immunomodulatory effects in mice and can be used to augment the immunity.

7. Effect of Kamdhenu Ark an Antioxidant on Chromosomal Aberration.

Dutta Dipanwita, (Indira Gandhi Academy of Environmental Education Research & Ecoplanning (Gwalior, MP).

The ameliorating effect of distilled cow urine distillate on mitomycin C induced genotoxicity. The Kamdhenu Ark sample could protect the chromosomal aberration caused by mitomycin C in human leucocyte cultures. The volatile acid content of K-ark is about 39 mg/lt. As volatile acids are known to protect DNA damage, the protection caused by Kamdhenu Ark against MMC induced chromosomal aberration may therefore be attributed to antioxidant property of volatile acids present in Kamdhenu Ark.

8. Antigenotoxic / Ameliorative effect of ark in human polymorphonuclear leukocytes.

Dr. Datta, S. Saravana Devi, K.Krishnamurthi, T.Chakravarthi, National Environmental Engineering Research, Institute, Nagpur.

The Gomutra Arka and redistilled Gomutra Arka is found to possess total antioxidant status of around 2.6 mmol contributed mainly by volatile fatty acids (1500 mg/litre). These fatty acids and other antioxidants might be responsible for the observed ameliorative effect. The chromosomal aberration caused by chemicals could be ameliorated by redistilled Ark (1,50,100 ul) antioxidant status in distillates-0.8 mmol. Redistilled Ark (ammonicalnitrogen-15 mg/liter)

9. A Comparative Study on Immunostimulatory Effects of Kamdhenu Ark and Vasant Kusumakar in Mice.

R Kumar, Chauhan R.S., Singhal L.K., Singh A.K. & Singh DD. (Dept of Veterinary Pathology, college of Veterinary Sciences, G.B.Pant University of Agriculture & Technology, Pantnagar-India.)

A Study was conducted to compare the immunostimulatory effects of Kumdhenu Ark & Vasant Kusumakar in mice. Kamdhenu Ark was found to have significantly higher immunostimulatory effect in comparison to Vasant Kusumakar. Increase in humoral immunity in mice was three times higher due to Kamdhenu Ark in comparison to Vasant Kusumakar. Similarly cell mediated immunity was increased by both but increase due to Kamdhenu Ark was four times more in comparison to Vasant Kusumakar.

10.Evaluation of wound healing potential of cow urine in goats.

Mishra Rakesh and Dass.L. L. (Department of Veterinary Surgery and Radiology Ranchi Veterinary College, Kanke, Ranchi)

The present study was conducted on 48 surgically created wounds in twelve apparently healthy goats of either sex. The goats were grouped into three of four animals each. The wounds of group I was treated with cow urine topically while wounds of group II and group III treated with cow urine topically as well as orally and progeny tree distilled water respectively. Granulation tissue appeared earlier in group II (3rd day) than group I (4-5th day) while it was observed on 7th day in group III. Moderate degree of inflammation persisted for 5-6th day in group I and II whereas it persisted for 15-16 days in group III. Wounds were completely healed by epithelialization earlier in group I (18-21th day) and group II (17-20th day) than control group (30-35th day). Extensive wound contraction was found in group II (94, 47+0.53%) followed by group I (89, 90+0.50%) and group III (77, 81+0.37%) on day 21. Neo-vascularisation was observed from day-7 in all three groups and extent of neo-vascularisation was maximum in group II on day 14 followed by group I and group III. Group I and II showed maximum fibroblastic proliferation on day-7 as compared to group III. Intense morphologically fibroplasia was more extensive in group I followed by group I and III. Intense collagen fiber formation was more in group II followed by group I and III. Elastic was found with maximum intensity in all groups on day-21. Qualms of reticular fiber formation increased with time and maximum proliferation of fiber was observed on 21 day of observation. Group II excelled in reticular fiber followed by group I and least was recorded in group III 21 day of observation.

11.Effect of Cow Urine (Go-Mutra) in Control of Haemonchosis in Goat:

It was found that “Go-mutra” treated goats were effective to control the haemonchosis infection. The treatment was found equivalent to conventional drugs like “Albendazole” treatment with regard to egg per gram in the faeces. The hemoglobin percent of goats increased significantly in Go- mutra treated than untreated control goats. The appearance and shining of body coat was remarkable in the goats treated with “Go-Mutra”

12.In Vitro & In Vivo Efficacy of Cow Urine Distillate (CUD) for Treatment of Sub Clinical Endometritis in Cattle.

Singh, Mritunjay Prasad and Sinha, A. K. (Department of Animal Reproduction, Gynecology and Obstetrics Ranchi Veterinary College, Kanke, Ranchi)

Present study was carried out at Military dairy farm. Namkom, Ranchi sixty cows were selected and grouped in to treatment (30) and control (30). All animals were diagnosed as sub-clinical endometriosis on the basis of history and isolation and identification of bacterial in cervical mucous samples. Neat CUD was found effective against 54.41% of bacterial isolates followed by diluted CUD, 1:2 and 1 4, against 41 18% and 22.06% respectively. The overall conception rate was found to be 56.65%, in animal treated with neat CUD and 23.33% in animals of control group. There was significant difference in conception rate between CUDS treated and control groups.

13.Semen Quality, Fertility, Hatchability and Egg Quality in Poultry After Administration of Distilled Cow Urine (Go-Mutra)

Single, Mritunjay Prasad and Sinha, A.K.(Department of Animal Reproduction, Gynecology and Obstetrics Ranchi Veterinary College, Kanke, Ranchi)

This study was carried out on 80 hens and 20 cocks of Deshi breed maintained at Avian Research and Development Centre. Ranchi Veterinary College Ranchi Birds were grouped into treatment and control. All the birds of treatment group were administered with distilled cow urine orally@ 1ml/ bird daily with graduated papilla for a period of forty days whereas all ricebirds of control group were given simple drinking water. In treatment group of hen highly significant effect ware observed on fertility of egg, albumin index and shell thickness of treated and untreated hens were non significant in cocks highly significant difference was observed. Whereas with respect to motility percentage and sperm concentration between set of treated and untreated cocks no difference was observed with regard to volume of semen, live sperm percentage and normal sperm percentage.

14.A Clinical Study on the Effect of Gomutrasava in Shwitra.

Belge .R.K, Jumale M.M, (Shri Ayurved College, Nagpur University.)

A clinical study on the effect of Gomutrasava in Shwitra was carried out on 46 patients. 46 Shwitra patients were prescribed Gomutrasava orally for 6 months. Clinical assessment was done based on the size, shape & discolouration of patch.

Initially, laboratory examination of Gomutrasava was done & it revealed that Gomutrasava has antimicrobial effect on *S. aureus* + + + +, *P. Vulgaris* + + +, *Kl. Pneumoniae* + +, *E. coli* + +, *S. typhi* +, *B. Subtilis* +. Its pH is neutral, alkaloids are present, alcohol content is 4% to 4.5 %, reducing sugars are present.

Blood investigations of patients (¼ Hb%, TLC, DLC, ESR) before & after Treatment were done.

After Gomutrasava treatment there was a significant reduction in size of discoloured patches ($p < 0.001$). The discolouration also came to normal significantly ($p < 0.001$). Patient was relieved of local itching & irritation symptoms. There was a significant increase in haemoglobin ($p < 0.001$) & reduction in ESR ($p < 0.001$) of the patients after treatment. TLC & eosinophils were also reduced but no significant change was seen in polymorphs, lymphocytes & monocytes. The study concluded that Gomutrasava is an effective medicine in Shwitra.

15.A Randomized Controlled Study to Compare the Efficacy of Kamdhaenu Swithranashaka Tablet in the Treatment of Vitiligo by Combining it with Swithra Nashaka Lepa & PUVA

Mahadevan PE, Cose KS, Prasanna KS, and Narahari SR, (Institute of applied dermatology, Kasaragod Kerala)

Vitiligo is a major dermatological problem in our country. It has stigma in the society and intense emotional reaction by the patients because of conspicuously visible cosmetic disfigurement. According to ayurveda vitiligo of more than one 4 years duration, the lip and tip variety and vitiligo with lecotrichea are not curable. Even in biomedicine Vitiligo is a difficult to treat problem and gold standard in its management is PUVA (taking psoralen tablets extracted from “Bacuchi” and exposure to UVI rays in a chamber at 2 hours after the oral intake of psoralen.) This study was conducted to determine the efficacy of an ayurvedic medication given alone and in combination of biomedicine.

Materials and Method : Screening of the patients was done and 30 patients between the age group of 18 to 60 years having less than 50 % body surface area affected with depigmented / hypo pigmented lesions were selected for the study on the first come first serve basis. Patients with Vitiligo on non-hairy area, pregnant and lactating women and patients suffering with ophthalmological contra indications were excluded from this study.

All the patients were given a single dose of mridu virechana with avipattikara choorna 20 g with boiled water in empty stomach in the morning, a day earlier to the treatment.

Group I consisted of 15 patients treated with oral Kamdhenu Switranashaka Vati 2 bid and application of Kamdhenu Switranashaka Lepa twice daily and exposure to sunlight. These patients were instructed to take Kamdhenu Switranashaka vati 2 bid orally with water after food and asked to apply Kamdhenu Switranashaka Lepa externally after grinding in tap water and make a thin layer over the white patches. In-group no II 15 patients were treated with oral Kamdhenu Switranashaka Vati 2 bid after food with warm water and PUVA therapy was administered regularly twice a week. Pathya-pathya was advised to both groups.

The improvement is assessed by comparing the follow up photograph after 3 months and at the end of the study.

Conclusion: Among 15 patients treated using Kamdhenu Switranashaka Vati and Kamdhenu Switranashaka Lepa, 20% showed good response and 46.4% showed moderate response. In 15 patients in group no II Repigmentation of non-hairy areas was observed among those on Kamdhenu Switranashaka Vati and Kamdhenu Switranashaka Lepa. In the group II the pigmentation over hairy areas was faster compared to group no I, Koebner's Phenomena was arrested in most of the patients with in 3 month to oral Switranashaka Vati. The Koebner phenomenon signifies activity of the diseases. Repigmentation over non hairy areas such as lip

and tip of the fingers is seen at the end of 6 months which is rarely seen in modern treatment. Pathya plays a major role here and whenever pathya is not followed newer lesions are seen in some patients.

16. Anti Cancer Properties Of Cow Urine:

K Darma, R S Chauhan, L Singhal. IVRI Izatnagar.

The Cow Urine Therapy is suggested to possess potent AntiCancer abilities. The following properties are enlisted as responsible for Anti Cancer Results.

DNA repairing potential: Cow urine efficiently repairs the damaged DNA. Damage of DNA by chemicals is the major cause for Cancer. This property reduces the spread of malignant cancers and helps fighting tumor.

Apoptosis: It induces self destruction tendency in the abnormally growing cells. Lymphocytes undergo suicidal tendency due to chemicals. Lymphocytes are major cells that fight against cancer cells. Cow urine induces anapoptosis of Lymphocytes.

Antioxidant Property: The volatile fatty acids show antioxidant properties which controls damage in DNA.

Antimicrobial Activity: Many viruses cause cancer. These microbes are killed by cow urine.

Bioenhancing Property :- Bioenhancers are substances which promote and augment the bioactivity or bioavailability or uptake of drugs. This will reduce the dosage & duration of antibiotic therapy and anticancer drugs like Taxol (anticancer drug).

Anti free radicals:-The free radicals cause cell damage thereby inducing tumour cell growth or cause recurrence. Cow urine prevents free radicals.

Immounomodulating activity: Cow Urine has vital potential to enhance the activity of macrophages, lymphocytes (both T & B cells) humoral cellular immunity, cytokines (Interlukine 1 & 2).