Original Article

A multicenter, observational, homoeopathic clinical verification study of *Cynodon dactylon* revealing symptom prevalence in a cohort of 340 patients

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Abstract

Context: Clinical verification is an ongoing research program of the Council that verified many rare homoeopathic drugs. **Aim:** This study was carried out to clinically verify the "symptomatology" of *Cynodon dactylon* and to ascertain the prevalence of symptoms in the "improved" and "not improved" groups. **Materials and Methods:** The study was a multicenter, open, observational study. A total of 462 patients were enrolled after matching with the available symptom, compendium of the drug, and eligibility criteria in seven units/institutes of the Council. The medicine was prescribed in 6C, 30C, 200C and 1M potencies as per the need of each patient, following homoeopathic principles and the protocol developed by the Council. The collected data were presented in terms of descriptive statistics. Prevalence of the symptoms in the responding and nonresponding population was compared using Chi-square test or Fisher's exact test, as appropriate. **Results:** A total of 340 complete cases were analyzed; male/female was 204/136; mean age was 29.7 years. There were "clinical successes" in 274 (80.6%) cases and "failures" in 66 (19.4%), judged subjectively by the physicians. A minimum of two prescriptions was considered for pick-listing each symptom as per protocol. The number of symptoms verified was as follows: proving symptoms (n = 43), symptoms from other literature (n = 10), and new clinical observations (n = 57). **Conclusions:** A total of 53 recorded symptoms were verified and 57 new clinical symptoms were identified. Further replication and estimation of likelihood ratio in general practice settings are crucial for confirmatory inclusion of the symptoms in homoeopathic literature.

Key words: Clinical verification, Cynodon dactylon, Homoeopathy, Observational study

Introduction

In India, almost 95% of the prescriptions are plant-based in the traditional Ayurveda, Unani, Siddha and Homoeopathy systems.[1] Among the plants, *Cynodon dactylon*, a perennial grass of *Poaceae* family, native to the warm temperate and tropical regions, is an important one.[2] It is reported to have important properties such as anabolic, antiseptic, astringent, cyanogenetic, demulcent, depurative, laxative, diuretic and emollient.[3] It is used by traditional healers for purifying blood, anuria, biliousness, conjunctivitis, diarrhoea, gonorrhoea, itches and stomachache.[4] The plant is a rich source of β-sitosterols, flavonoids, alkaloids, glycosides and triterpenoids.[5] Some of the identified flavonoids are quercetin, kaempferol, catechin and myricetin. Of the carotenoids, β-carotene, lutein, violaxanthin and zeaxanthin are important.[6] Ethnopharmacobotanical studies investigating indigenous knowledge of medicinal plants among village people and tribal minorities reported *Cynodon dactylon* as one of the most frequently used medicinal plants.[7-13] The juice of the plant is

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astringent and is applied externally as first aid to fresh cuts and wounds. The plant is a folk remedy for catarrhal ophthalmia, hysteria, epilepsy, insanity, chronic diarrhoea, anasarca, calculus, carbuncles, cough, hypertension, snake bites, gout, and rheumatic affections. It is bitter and sharp hot in taste, has good odor, works as laxative, brain and heart tonic, aphrodisiac, expectorant, carminative, and is useful against grippe in children and for pains, inflammations, and toothache.[3] Numerous *in-vivo* and *in-vitro* activities and traditional uses have been noted; for example, anti-inflammatory,[14,15] antimicrobial and antipyretic,[16,17] cardioprotective,[18] hepatoprotective,[19-21] antidiabetic,[22-26] hypolipidemic,[27] anti-arrhythmic,[25,28] bronchodilatory,[29] anticancer and chemopreventive,[30] antioxidant,[31-35] immunomodulatory and DNA protective,[36] angiogenesis,[37] protection from ionizing radiation-induced cytogenetic damage,[38] nephrolithiasis, urinary problems, prostatitis, and diuretic,[39-44] wound and ulcer healing,[45-49] stress-induced infertility,[50] scorpion bite,[51] mosquito larvicidal activity,[52] antihelminthic,[53] various gastrointestinal disorders,[11] and anticonvulsant.[54,55] It was also used to improve growth, immune activity, and survival of tilapia fish in fishery sciences[56] and as antihelminthic in veterinary sciences.[57] Agrohomoeopathic use was recorded in terms of its mother tincture having significant effect on radial growth of edible fungus.[58]

Cynodon dactylon was identified as one of the useful weeds in preparing homoeopathic drugs at Chhattisgarh, Madhya Pradesh, India.[59] Regulatory standard of this drug has been mentioned as monograph in the 2nd volume of Homoeopathic Pharmacopoeia of India, 1974.[60,61] This plant was identified as one of the potential sources of homoeopathic medicine.[62,63] The drug was standardized by the Central Council for Research in Homoeopathy (CCRH) at its units in Hyderabad, Ghaziabad, and Lucknow for pharmacognostic, physicochemical, and pharmacological aspects.[64] First homoeopathic proving of this drug was conducted by Dr. Jugal Kishore in 6X, 200X, and mother tincture[65] and later by CCRH in mother tincture, 30C, and 200C potencies.[64,66,67] Following that, clinical verifications were carried out by the CCRH and individual practitioners.[64,68-70] Enough information about the drug along with its significance, though not elaborative, is given in some of the Homoeopathic Materia Medica.[71-73]

Materials and Methods

The study was conducted at seven institutes/units of the CCRH: Central Research Institute (H), Noida (Uttar Pradesh); Regional Research Institute (H), Puri (Odisha); Regional Research Institute (H), Shimla (Himachal Pradesh); Regional Research Institute (H), Gudivada (Andhra Pradesh); Regional Research Institute (H), Imphal (Manipur); Clinical Research Unit (H), Port Blair (Andaman and Nicobar Islands); and Clinical Verification Unit (H), Vrindaban (Uttar Pradesh).

As per the inclusion criteria, the patients from all age groups, both sexes, having symptomatic similarity with *Cynodon dactylon*, and willing to participate were included in the study. If patient was taking any acute medicine, he/she was included in the study after a washout period of 1 week. Exclusion criteria were patients unwilling to participate, patients having a clinical presentation not corresponding with the study medicine, patients on regular medication for any systemic disease, and patients under chronic medicinal treatment. After providing patient information sheet in local vernaculars, informed written consent was obtained from the eligible participants or the guardians in case of minors before participating in the study.

The study medicines were procured from a good manufacturing practice-compliant homoeopathic pharmacy in various potencies, namely, 6C, 30C, 200C, and 1M, and were distributed to above-mentioned institutes/units. First, the presenting signs and symptoms of the patients were recorded in case recording proforma. After that, the symptoms were repertorized using a repertory prepared for clinical verification by the CCRH and then a specially developed Materia Medica[74] was consulted for final selection of the remedy. Later, all these works were incorporated in one book published by CCRH.[64] If the presenting symptoms of the patient corresponded with *Cynodon dactylon*, then the medicine was prescribed in 6C potency, thrice a day till the improvement or aggravation occurred or for maximum 5–7 days allowing the medicine to act. The medicine was served by corresponding institute/unit pharmacy. In follow-up visits, the changes in signs and symptoms were noted. If there was any sign of improvement, then placebo was prescribed. If there was status quo, next higher potencies such as 30C were prescribed twice a day for 3–5 days in acute diseases or for 5–7 days for chronic diseases, 200C once a week were prescribed and were observed for 2 weeks; and 1M potencies were advised once a fortnight, followed by 2 weeks observation. Dosage was decided as per the need of the case and in accordance with homoeopathic principles. Any potency could be tried for twice only. If adequate responses were not elicited, the cases were restudied and next higher potency was prescribed. If no change was observed even after the change of potencies also, then the case was closed and considered as a clinical failure or status quo. If the patient presented with new symptoms of mild intensity, placebo was prescribed. Appearance of severe symptoms (new or aggravation of existing symptoms) with sufficient strength to cause considerable discomfort to the patient called for a change of medicine or therapy., Such case was considered as a deteriorated one. "Clinical success" was defined *a priori* as cases showing clinical improvement, objective or subjective, of present complaint(s) as judged by the investigating physician(s) and/or as reported by the patient(s). "Clinical failures" were such cases showing "status quo" and/or worsening or deterioration of the condition, or cases requiring change of medicines. All the data were collected and compiled in specially designed Excel spreadsheet for analysis. Data were presented using descriptive statistics – mean, standard deviations (SDs), absolute values, percentages, and 95%

confidence intervals (CIs). As per protocol, a minimum of two prescriptions for each symptom have been considered for enlisting. Prevalence of the symptoms in the responding and nonresponding population was compared using Chi-square or Fisher's exact test, keeping $P < 0.05$ two-tailed as statistically significant.

Results

A total of 462 patients were enrolled in the study having similar symptomatology with *Cynodon dactylon* and meeting the pre-specified criteria after screening 25,368 patients from outpatients, for verifying assigned 34 drugs under the clinical verification program of the Council, from October 2005 to March 2010. Of these, 122 dropped out and 340 results were analyzed in the end [Figure 1]. Among the enrolled patients, 204 (60%) were male, rest 136 (40%) were female. The mean age of the patients was 29.7 years (SD = 18.3). Patients spanned all age groups, but majority were from age groups of 19–30 years (n = 103, 30.4%). 261 patients (94.9%) were Hindu, 112 (54.6%) were married, and majority (n = 75, 33.9%) were students by occupation. Mean body mass index (BMI) was 33.1 (SD = 8.9), and most of the patients (n = 85, 42.1%) belonged to obese II BMI range of 35–39.9. Mean height and weight were 150.1 cm (SD = 24.3) and 50.8 kg (SD = 17.8), respectively. Mean systolic and diastolic blood pressures were 117.2 (SD = 12.0) and 75.3 (SD = 7.3) mm Hg, respectively [Table 1]. There were clinical successes in 274 cases (80.6%) and failures in 66 (19.4%), judged subjectively by the physicians. The clinically verified symptoms were enlisted along with the outcomes on the basis of existing proving records and the symptoms available in other literature, and also the new observations (clinical symptoms), those are not mentioned elsewhere but found to be relieved after administration of the medicine [Table 2]. Among the 340 patients, a total of 32 different types of clinical conditions or diagnoses were obtained. Respiratory tract infection (RTI) was the most frequently recorded clinical diagnosis in the responding population (n = 81; 29.6%), followed by haemorrhoids (n = 51; 18.6%), diarrhoea and dysentery (n = 44; 16.1%), rheumatic conditions and myalgia (n = 23; 8.4%), menorrhagia (n = 17; 6.2%), and urolithiasis (n = 11; 4.0%) [Table 3].

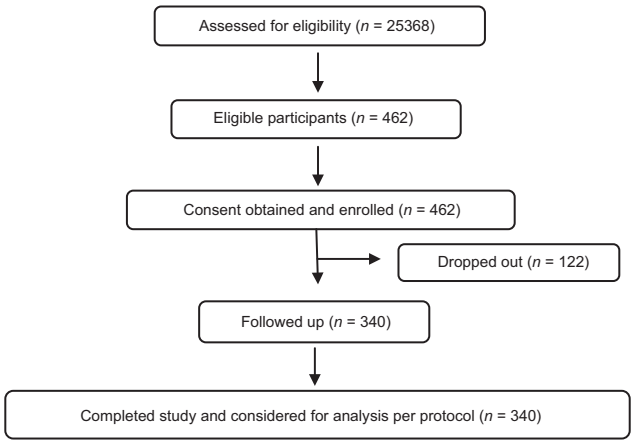

Figure 1: The study flow diagram

After going through the records, namely, proving symptoms of *Cynodon dactylon* conducted by the Council and already verified symptoms of the drug emerged from earlier verification of the drug in the Council under the same program, the following were the most frequently observed symptoms:

- "Dry cough in morning, at night, with irritation and sore

Table 1: Sociodemographic features of the patients

Features	*n* (%)	95% CI
Gender (*n*=340)		
Male	204 (60)	54.6, 65.2
Female	136 (40)	34.8, 45.4
Age (years; *n*=340)¥	29.7 (18.3)	27.8, 31.7
Age (groups)		
≤18	101 (29.8)	25.0, 34.9
19-30	103 (30.4)	25.5, 35.5
31-50	91 (26.8)	22.2, 31.9
51-70	38 (11.2)	8.1, 15.1
≥71	6 (1.8)	0.7, 4.0
Religion (*n*=275)		
Hindu	261 (94.9)	91.4, 97.1
Islam	7 (2.6)	1.1, 5.4
Christian	6 (2.2)	0.9, 4.9
Sikh	1 (0.4)	0.0, 2.3
Marital status (*n*=205)		
Married	112 (54.6)	47.6, 61.5
Unmarried	92 (44.9)	38.0, 52.0
Others	1 (0.5)	0.0, 3.1
Occupation (*n*=221)		
Business	15 (6.8)	4.0, 11.2
Service	37 (16.7)	12.2, 22.5
Student	75 (33.9)	27.8, 40.6
Homemaker	56 (25.3)	19.9, 31.7
Farmer	8 (3.6)	1.7, 7.3
Labor	14 (6.3)	3.6, 10.6
Others	16 (7.2)	4.3, 11.7
Clinical observations		
Anemia	3 (0.9)	0.2, 2.8
Height (cm; *n*=202)¥	150.1 (24.3)	146.7, 153.5
Weight (kg; *n*=204)¥	50.8 (17.8)	48.4, 53.3
BMI (*n*=202)¥	33.1 (8.9)	31.9, 34.3
BMI classes		
Underweight (<18.5)	16 (7.9)	4.7, 12.8
Normal (18.5-24.9)	18 (8.9)	5.5, 13.9
Overweight (25-29.9)	42 (20.8)	15.6, 27.2
Obese I (30-34.9)	41 (20.3)	15.1, 26.6
Obese II (35-39.9)	85 (42.1)	35.2, 49.2
SBP (mmHg; *n*=176)¥	117.2 (12.0)	115.4, 119.0
DBP (mmHg; *n*=176)¥	75.3 (7.3)	74.3, 76.4
Pulse rate (/min; *n*=203)¥	79.3 (11.0)	77.8, 80.8
Respiratory rate (/min; *n*=201)¥	19.3 (2.6)	19.0, 19.7
Temperature (°C; *n*=197)¥	37.0 (0.7)	36.9, 37.1

¥Continuous data presented as mean (SD). SD: Standard deviation; SBP: Systolic blood pressure; DBP: Diastolic blood pressure; BMI: Body mass index

Table 2: List of verified symptoms of the homoeopathic medicine *Cynodon dactylon* (*n*=340)

	Symptom prevalence (%) in the medicine population (*n*=340)	95% CI	Symptom prevalence (%) in the responding population (*n*=274)	95% CI	Symptom prevalence (%) in the nonresponding population (*n*=66)	95% CI	χ^2 value at df=1 (Yates corrected)	*P*
Symptoms (drug proving, clinical verification)[66,68-70]								
Vertigo with trembling; aggravation exertion, reading, rising from seat, walking; amelioration lying down with eyes closed	2 (0.6)	0.1, 2.4	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351
Headache, right-sided, bursting, with dry cough and coryza; aggravation motion; amel. lying down	2 (0.6)	0.1, 2.4	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Piercing pain in the occipital region and nape of the neck; aggravation bending forward or backward; amel. lying down, pressure, sleep	2 (0.6)	0.1, 2.4	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Throbbing and pulsating pain in the frontal and occipital region, with nausea; aggravation exertion, reading, walking; amel. closing eyes, pressure, sleep	2 (0.6)	0.1, 2.4	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Throbbing and pulsating pain in the frontal and temporal region; amel. lying down, sleep	2 (0.6)	0.1, 2.4	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351
Dull-aching pain in the nape of neck; aggravation slightest movement of head, bending head forward	19 (5.6)	3.5, 8.7	13 (4.7)	2.8, 7.9	6 (9.1)	3.8, 19.4	1.2	0.279
Thick yellowish coryza; dryness and soreness throat; paroxysmal sneezing in morning and evening; bursting headache; aggravation cold; amel. evening, morning	7 (2.1)	0.9, 4.4	6 (2.2)	1.0, 4.7	1 (1.5)	0.1, 9.3	0.0	1.000
Thin, copious, watery, bland nasal discharge; stoppage of nostril, especially left; aggravation morning, reading, sleep; amel. daytime, open air	30 (8.8)	6.1, 12.5	23 (8.4)	5.5, 12.5	7 (10.6)	4.7, 21.2	0.1	0.744
Dryness of left nostril with crusts; aggravation morning	3 (0.9)	0.2, 2.8	3 (1.1)	0.3, 3.4	0	0, 6.9	0.0	1.000
Frequent sneezing with thin watery discharge, dry cough with difficulty in breathing, pain neck with right-sided headache; aggravation warm room, amel. open air	2 (0.6)	0.1, 2.4	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000

Contd...

Table 2: Contd...

	Symptom prevalence (%) in the medicine population (n=340)	95% CI	Symptom prevalence (%) in the responding population (n=274)	95% CI	Symptom prevalence (%) in the nonresponding population (n=66)	95% CI	χ^2 value at df=1 (Yates corrected)	*P*
Thin, watery nasal discharge with sneezing, followed by thick yellow discharge	12 (3.5)	1.9, 6.3	11 (4.0)	2.1, 7.3	1 (1.5)	0.1, 9.3	0.4	0.474
Spasmodic cough, scanty expectoration, thick yellow mucus, difficulty in breathing; aggravation in room, lying down; amel. open air, morning	20 (5.9)	3.7, 9.1	16 (5.8)	3.5, 9.5	4 (6.1)	2.0, 15.6	0.1	1.000
Dry cough in the morning, at night, with irritation and sore throat; aggravation cold air, evening, morning; amel. covering or wrapping up warmly, hot drinks, warmth	52 (15.3)	11.7, 19.7	45 (16.4)	12.3, 21.5	7 (10.6)	4.7, 21.2	1.0	0.323
Cough with thick yellow expectoration	13 (3.8)	2.1, 6.8	11 (4.0)	2.1, 7.3	2 (3.0)	0.5, 11.5	0.0	1.000
Epistaxis, bright red; aggravation sun heat	10 (2.9)	1.5, 5.5	7 (2.6)	1.1, 5.4	3 (4.6)	1.2, 13.6	0.2	0.415
Fever with chill, dryness of lips, restlessness, weakness, no thirst; aggravation evening, night; amel. covering	4 (1.2)	0.4, 3.2	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000
Feverishness without chill and thirst, profuse sweat, dry cough, and headache	8 (2.4)	1.1, 4.8	8 (2.9)	1.4, 5.9	0	0, 6.9	0.1	1.000
Soreness and dryness of throat with dry cough and headache; aggravation morning, swallowing, cold air; amel. warm drinks	4 (1.2)	0.4, 3.2	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000
Appetite (n=133)								
Increased	9 (6.8)	3.3, 12.8	6 (2.2)	1.0, 4.7	3 (4.6)	1.2, 13.6	0.4	0.384
Abdominal distension with flatulence	6 (1.8)	0.7, 4.0	5 (1.8)	0.7, 4.4	1 (1.5)	0.1, 9.3	0.1	1.000
Offensive flatus, abdomen distended, discomfort, and dull-aching pain in right hypochondria; amel. passing flatus	7 (2.1)	0.9, 4.4	6 (2.2)	1.0, 4.7	1 (1.5)	0.1, 9.3	0.0	1.000
Constipation with heaviness in the abdomen	5 (1.5)	0.5, 3.6	3 (1.1)	0.3, 3.4	2 (3.0)	0.5, 11.5	0.4	0.250
Gripping colic; amel. pressure	2 (0.6)	0.1, 2.4	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351
Epigastric pain, heaviness, constipation, flatulence	3 (0.9)	0.2, 2.8	3 (1.1)	0.3, 3.4	0	0, 6.9	0.0	1.000
Heaviness in the abdomen with gurgling sensation; aggravation after eating	4 (1.2)	0.4, 3.2	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000

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Table 2: Contd...

	Symptom prevalence (%) in the medicine population (*n*=340)	95% CI	Symptom prevalence (%) in the responding population (*n*=274)	95% CI	Symptom prevalence (%) in the nonresponding population (*n*=66)	95% CI	χ^2 value at df=1 (Yates corrected)	*P*
Vesicular or pustular itching eruptions in groins, desire to scratch, followed by burning, watery discharge; aggravation after scratching; amel. bath, cold, evening	19 (5.6)	3.5, 8.7	13 (4.7)	2.7, 8.2	6 (9.1)	3.8, 19.4	1.2	0.279
Burning in the anus after stool	19 (5.6)	3.5, 8.7	13 (4.7)	2.7, 8.2	6 (9.1)	3.8, 19.4	1.2	0.279
Constipated; frequent urge for stool	16 (4.7)	2.8, 7.7	11 (4.0)	2.1, 7.3	5 (7.6)	2.8, 17.5	0.8	0.209
Bleeding and swollen piles	48 (14.1)	10.7, 18.4	39 (14.2)	10.4, 19.1	9 (13.6)	6.8, 24.8	0.0	0.943
Dry hard stool, no desire with constrictive pain in the epigastric region and heaviness in the abdomen	10 (2.9)	1.5, 5.5	8 (2.9)	1.4, 5.9	2 (3.0)	0.5, 11.5	0.1	1.000
Diarrhoea-watery, yellow, mucoid, offensive, involuntary	13 (3.8)	2.1, 6.6	10 (3.7)	1.9, 6.8	3 (4.6)	1.2, 13.6	0.0	0.723
Chronic dysentery	13 (3.8)	2.1, 6.6	12 (4.4)	2.4, 7.7	1 (1.5)	0.1, 9.3	0.5	0.476
Stool hard or semisolid, difficult to evacuate; followed by soft stool with mucus	4 (1.2)	0.4, 3.2	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580
Diarrhoea-watery, profuse, offensive, frequent and irresistible desire, passes flatus only; burning in anus after stool, heaviness and gurgling in the abdomen; pain below umbilicus	16 (4.7)	2.8, 7.7	13 (4.7)	2.7, 8.2	3 (4.6)	1.2, 13.6	0.1	1.000
Pain around umbilicus; aggravation morning	3 (0.9)	0.2, 2.8	1 (0.4)	0.1, 2.0	2 (3.0)	0.5, 11.5	1.8	0.098
Burning during urination	4 (1.2)	0.4, 3.2	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580
Spermatic cord swollen with bruised pain; aggravation walking; amel. rest	2 (0.6)	0.1, 2.4	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351
Menses profuse, bright red, painful; aggravation bending forward; amel. lying on back	4 (1.2)	0.4, 3.2	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580
Menses irregular, dark, clotted	13 (3.8)	2.1, 6.6	10 (3.7)	1.9, 6.8	3 (4.6)	1.2, 13.6	0.0	0.723
Stitching pain in back; aggravation bending forward	17 (5)	3.0, 8.0	12 (4.4)	2.4, 7.7	5 (7.6)	2.8, 17.5	0.6	0.341
Coldness of extremities with numbness in tips of fingers and toes	2 (0.6)	0.1, 2.4	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Pain and numbness in thighs; aggravation sitting, amel. walking	2 (0.6)	0.1, 2.4	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351

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Table 2: Contd...

	Symptom prevalence (%) in the medicine population (n=340)	95% CI	Symptom prevalence (%) in the responding population (n=274)	95% CI	Symptom prevalence (%) in the nonresponding population (n=66)	95% CI	χ^2 value at df=1 (Yates corrected)	*P*
Itching rashes, all over body, desire to scratch followed by burning; aggravation sun heat, warmth; amel. open air	14 (4.1)	2.4, 7.0	11 (4.0)	2.1, 7.3	3 (4.6)	1.2, 13.6	0.0	0.740
Symptoms from other literature[71-73]								
Involuntary urination while sneezing; frequent and copious urine	2 (0.6)	0.1, 2.4	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351
Taste (n=49)								
Loss of	6 (12.2)	5.1, 25.5	5 (1.8)	0.7, 4.4	1 (1.5)	0.1, 9.3	0.1	1.000
Sleep (n=89)								
Disturbed, restless (n=89)	29 (32.6)	23.2, 43.4	21 (7.7)	4.9, 11.6	8 (12.1)	5.8, 23.0	0.8	0.358
Mind (n=136)								
Angry easily, on contradiction, without reason, short-tempered	26 (19.1)	13.1, 26.9	23 (8.4)	5.5, 12.5	3 (4.6)	1.2, 13.6	0.6	0.425
Desires company	27 (19.9)	13.7, 27.7	22 (8.0)	5.2, 12.1	5 (7.6)	2.8, 17.5	0.0	0.896
Averse to noise, crowd, music; desire to be alone	15 (11.0)	6.5, 17.8	13 (4.8)	2.7, 8.2	2 (3.0)	0.5, 11.5	0.1	0.744
Irritable	20 (14.7)	9.4, 22.0	17 (6.2)	3.8, 9.9	3 (4.6)	1.2, 13.6	0.1	0.775
Averse to mental or physical work; desire to lie down	6 (4.4)	1.8, 9.8	5 (1.8)	0.7, 4.4	1 (1.5)	0.1, 9.3	0.1	1.000
Profound weakness, lethargy	7 (5.2)	2.3, 10.7	6 (2.2)	1.0, 4.7	1 (1.5)	0.1, 9.3	0.0	1.000
Peevish, quarrelsome	4 (2.9)	1.0, 7.8	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580
New clinical symptoms								
Thermal relations (n=186)								
Ambithermal	100 (53.8)	46.3, 61.0	84 (30.7)	25.3, 36.5	16 (24.2)	14.9, 36.6	0.8	0.381
Hot	33 (17.7)	12.7, 24.2	27 (9.9)	6.7, 14.2	6 (9.1)	3.8, 19.4	0.0	0.965
Chilly	53 (28.5)	22.2, 35.6	36 (13.1)	9.5, 17.9	17 (25.8)	16.1, 38.2	5.5	0.019*
Desire for (n=151)								
Bitter	3 (2.0)	0.5, 6.5	3 (1.1)	0.3, 3.4	0	0, 6.9	0.0	1.000
Meat, chicken	4 (2.7)	0.9, 7.1	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000
Eggs	6 (4.0)	1.6, 8.8	6 (2.2)	1.0, 4.7	0	0, 6.9	0.5	0.601
Oily, spicy, fast food	72 (47.7)	39.6, 55.9	58 (21.2)	16.6, 26.6	14 (21.2)	12.5, 33.3	0.0	0.873
Fish	4 (2.7)	0.9, 7.1	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000
Sweets	42 (27.8)	21.0, 35.8	35 (12.8)	9.2, 17.5	7 (10.6)	4.7, 21.2	0.1	0.786
Salt	46 (30.5)	23.4, 38.6	29 (10.6)	7.3, 15.0	17 (25.8)	16.1, 38.2	9.2	0.002*
Warm food and drink	3 (2.0)	0.5, 6.5	3 (1.1)	0.3, 3.4	0	0, 6.9	0.0	1.000
Sour	18 (11.9)	7.4, 18.4	14 (5.1)	2.9, 8.6	4 (6.1)	2.0, 15.6	0.0	0.760
Aversion to (n=62)								
Bitter	6 (9.7)	4, 20.5	6 (2.2)	1.0, 4.7	0	0, 6.9	0.5	0.601
Sour	16 (25.8)	15.9, 38.7	11 (4.0)	2.1, 7.3	5 (7.6)	2.8, 17.5	0.8	0.209
Milk	2 (3.2)	0.6, 12.2	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Fish	3 (4.8)	1.3, 14.4	3 (1.1)	0.3, 3.4	0	0, 6.9	0.0	1.000
Fried, oily, fatty	4 (6.5)	2.1, 16.5	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000

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Table 2: Contd...

	Symptom prevalence (%) in the medicine population (*n*=340)	95% CI	Symptom prevalence (%) in the responding population (*n*=274)	95% CI	Symptom prevalence (%) in the nonresponding population (*n*=66)	95% CI	χ^2 value at df=1 (Yates corrected)	*P*
Green vegetables	3 (4.8)	1.3, 14.4	3 (1.1)	0.3, 3.4	0	0, 6.9	0.0	1.000
Spicy rich food	8 (12.9)	6.1, 24.4	6 (2.2)	1.0, 4.7	2 (3.0)	0.5, 11.5	0.0	0.655
Sweets	9 (14.5)	7.3, 26.3	5 (1.8)	0.7, 4.4	4 (6.1)	2.0, 15.6	2.2	0.754
Intolerance of (*n*=7)								
Egg	3 (42.9)	11.8, 79.8	2 (0.7)	0.2, 2.6	1 (1.5)	0.1, 9.3	0.0	0.478
Sour	2 (28.6)	5.1, 69.7	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Appetite (*n*=133)								
Diminished	124 (93.2)	87.2, 96.7	97 (35.4)	29.8, 41.4	27 (40.9)	29.2, 53.7	0.5	0.489
Thirst (*n*=94)								
Decreased	33 (35.1)	25.7, 45.7	26 (9.5)	6.4, 13.8	7 (10.6)	4.7, 21.2	0.0	0.965
Increased	57 (60.6)	50.0, 70.4	47 (17.2)	13.0, 22.3	10 (15.2)	7.9, 26.6	0.0	0.836
Tongue (*n*=318)								
Clean	245 (77.0)	71.9, 81.5	192 (70.1)	64.2, 75.4	53 (80.3)	68.3, 88.7	2.3	0.131
Moist	88 (27.7)	22.9, 33	67 (24.5)	19.6, 30.1	21 (31.8)	21.2, 44.6	1.1	0.285
Coated	52 (16.4)	12.6, 21.0	46 (16.8)	12.7, 21.9	6 (9.1)	3.8, 19.4	1.9	0.171
Dry	34 (10.7)	7.6, 14.7	28 (10.2)	7.0, 14.6	6 (9.1)	3.8, 19.4	0.0	0.964
Mapped	2 (0.6)	0.1, 2.5	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Taste (*n*=49)								
Bad	13 (26.5)	15.4, 41.3	8 (2.9)	1.4, 5.9	5 (7.6)	2.8, 17.5	2.0	0.142
Bitter	10 (20.4)	10.7, 34.8	8 (2.9)	1.4, 5.9	2 (3.0)	0.5, 11.5	0.1	1.000
Impaired	12 (24.5)	13.8, 39.2	11 (4.0)	2.1, 7.3	1 (1.5)	0.1, 9.3	0.4	0.474
Soapy	4 (8.2)	2.7, 20.5	4 (1.5)	0.5, 4.0	0	0, 6.9	0.1	1.000
Sour	2 (4.1)	0.7, 15.1	1 (0.4)	0.1, 2.0	1 (1.5)	0.1, 9.3	0.0	0.351
Stool (*n*=117)								
Dry, hard, constipated	55 (47.0)	37.8, 56.4	44 (16.1)	12.0, 21.1	11 (16.7)	9.0, 28.3	0.0	0.948
Watery, loose, mucoid, bloody	39 (33.3)	25.1, 42.7	30 (10.9)	7.6, 15.4	9 (13.6)	6.8, 24.8	0.2	0.689
Pasty, soft, unsatisfactory	12 (10.2)	5.7, 17.6	8 (2.9)	1.4, 5.9	4 (6.1)	2.0, 15.6	0.8	0.258
Urine (*n*=11)								
Burning in the urethra during	2 (18.2)	3.2, 52.2	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Sweat (*n*=71)								
Scanty	30 (42.3)	30.8, 54.5	25 (9.1)	6.1, 13.3	5 (7.6)	2.8, 17.5	0.0	0.876
Profuse	38 (53.5)	41.4, 65.3	32 (11.7)	8.2, 16.2	6 (9.1)	3.8, 19.4	0.2	0.703
Offensive	3 (4.2)	1.1, 12.7	2 (0.7)	0.2, 2.6	1 (1.5)	0.1, 9.3	0.0	0.478
Face	2 (2.8)	0.5, 10.7	0	0, 1.7	2 (3.0)	0.5, 11.5	4.0	0.037*
Forehead	2 (2.8)	0.5, 10.7	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Head	2 (2.8)	0.5, 10.7	0	0, 1.7	2 (3.0)	0.5, 11.5	4.0	0.037*
Mind (*n*=136)								
Anxious	5 (3.7)	1.4, 8.8	4 (1.5)	0.5, 4.0	1 (1.5)	0.1, 9.3	0.3	1.000
Depressed, sad, melancholic	4 (2.9)	1.0, 7.8	1 (0.4)	0.1, 2.0	3 (4.6)	1.2, 13.6	4.8	0.024*
Religious	4 (2.9)	1.0, 7.8	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580
Confused, indecisive	4 (2.9)	1.0, 7.8	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580
Forgetful, weak memory	31 (22.8)	16.2, 30.9	20 (7.3)	4.6, 11.2	11 (16.7)	9.0, 28.3	4.6	0.033*
Talkative	2 (1.5)	0.3, 5.8	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Mild, calm, gentle	17 (12.5)	7.7, 19.5	15 (5.5)	3.2, 9.1	2 (3.0)	0.5, 11.5	0.3	0.542
Dullness	7 (5.2)	2.3, 10.7	5 (1.8)	0.7, 4.4	2 (3.0)	0.5, 11.5	0.0	0.625

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Table 2: Contd...

	Symptom prevalence (%) in the medicine population (*n*=340)	95% CI	Symptom prevalence (%) in the responding population (*n*=274)	95% CI	Symptom prevalence (%) in the nonresponding population (*n*=66)	95% CI	χ^2 value at df=1 (Yates corrected)	*P*
Weeping tendency	5 (3.7)	1.4, 8.8	3 (1.1)	0.3, 3.4	2 (3.0)	0.5, 11.5	0.4	0.250
Fearful, fear of night, ghosts	3 (2.2)	0.6, 6.8	2 (0.7)	0.2, 2.6	1 (1.5)	0.1, 9.3	0.0	0.478
Obstinate	2 (1.5)	0.3, 5.8	2 (0.7)	0.2, 2.6	0	0, 6.9	0.0	1.000
Restless	4 (2.9)	1.0, 7.8	3 (1.1)	0.3, 3.4	1 (1.5)	0.1, 9.3	0.1	0.580

CI: Confidence interval; Chi-square or Fisher exact test applied; *P<0.05 two-tailed considered as statistically significant

throat; aggravation cold air, evening, morning; amelioration. covering or wrapping up warmly, hot drinks, warmth" (n = 52; prevalence 16.4% in the responding group, 95% CI: 12.3, 21.5)

- "Bleeding and swollen piles" (n = 48, prevalence 14.2% in the responding group, 95% CI: 10.4, 19.1)
- "Thin, copious, watery, bland nasal discharge; stoppage of nostril, especially left; aggravation morning, reading, sleep; and amel. daytime, open air" (n = 30, prevalence 8.4% in the responding group, 95% CI 5.5, 12.5) [Table 2].

Among the existing symptoms available from other literature, the most frequently observed symptoms were as follows:

- "Sleep, disturbed, restless" (n = 29, prevalence 7.7% in the responding group, 95% CI: 4.9, 11.6);
- "Desires company" (n = 27, prevalence 8.0% in the responding group, 95% CI: 5.2, 12.1)
- "Angry easily, on contradiction, without reason, short-tempered" (n = 26, prevalence 8.4% in the responding group, 95% CI: 5.5, 12.5) [Table 2].

Among new clinical symptoms, the most frequently observed symptoms were as follows:

- "Tongue, clean" (n = 245, prevalence 70.1% in the responding group, 95% CI: 64.2, 75.4)
- "Appetite diminished" (n = 124, prevalence 35.4% in the responding group, 95% CI: 29.8, 41.4)
- "Thermal relation, ambithermal" (n = 100, prevalence 30.7% in the responding group, 95% CI: 25.3, 36.5) [Table 2].

However, there were no statistically significant differences in the prevalence of any of the enlisted symptoms between the responding and nonresponding population [Table 2]. Among the newly observed clinical symptoms, ten were polar – thirst increased versus decreased; tongue clean versus coated; tongue moist versus dry; stool dry, hard versus watery, loose; and sweat scanty versus profuse. RTI and hemorrhoids emerged as the most frequently recorded clinical diagnosis in the responding population [Table 3]. All these findings warrant further research and validation, either by controlled trials and/or by prognostic research.

Discussion

In this observational clinical verification study, a total of 53 symptoms of *Cynodon dactylon* were verified, of which 43 symptoms were from the proving and clinical verification records, documented after the research carried out previously by the Council and the rest ten were clinical reconfirmation of symptoms from other literature. Besides these, 57 new clinical symptoms were also identified.

Most frequently encountered and improved clinical conditions were RTIs, haemorrhoids, diarrhoea, and dysentery, thus substantiating the traditional uses of *Cynodon dactylon*. Still, the frequency of prescriptions on the basis of those remained compromised, hindering definite prediction or inference about strength or importance of the symptoms in prescribing the medicine. Currently, likelihood ratio (LR) seems to be the mainstay of future homoeopathic research for confirming the accuracy of the symptoms enlisted under any drug. Retrospective assessment of prevalence and LR of symptoms in good responders could be a mean for better selection of symptoms for prospective research; however, feasibility of conducting such retrospective investigations deserves further discussion. Although the presence and/or absence of *Cynodon dactylon* symptoms in the "medicine worked" population can be identified in a retrospective way, still finding out the same in the remaining population treated during the study period from the available CCRH database is not feasible; hence, formation of the 2 × 2 contingency table of prognostic research and calculation of LR do not appear to be probable at this point of time. These symptoms of *Cynodon dactylon* with low prevalence need greater amount of cases to be able to establish a statistically significant LR. All these results should be considered as provisory and need confirmation through prospective research of real prevalence to "tune" homoeopathic medicines' knowledge and more importantly, to increase posterior chance of correct selection of medicine and improve prescription accuracy and clinical outcomes. In addition, we compared responding and nonresponding patients to get some idea of symptoms that can be further investigated; however, no significant difference was obtained in any occasion.

The spheres of action of *Cynodon dactylon* identified were head, nose, respiratory tract, gastrointestinal system, rectum, genitourinary system, musculoskeletal system, and skin. A few mental symptoms were elicited – getting angry easily, anger on contradiction and without reason; short-tempered; desires company; averse to noise, crowd, music; desire to be alone; irritable; averse to mental or physical work, desire to lie down, profound weakness, lethargy; peevish and quarrelsome. Moreover, our initial observation also elicited few polar symptoms – both desire for and aversion to bitter, fish, and sweet; thirst increased and decreased; tongue clean and coated; tongue moist and dry; sweat scanty and profuse; thermally chilly and hot. Apart from the above observations, during the study, a group of valuable symptoms also emerged reflecting the general characters of the medicine and thereby widening the probable scope of its therapeutic applicability. These newly emerged general symptoms may offer promising help during prescription of *Cynodon dactylon*. These were desire for salty things and sweets, increased appetite, excessive or decreased thirst, and decreased sweat. The mental features obtained were sad, depressed, melancholic mood; forgetful and weak memory; irritability; and aversion to noise, light, and crowd. These may be considered as useful clinical concomitants or associated symptoms, carrying much importance to prescribe the medicine. The overall results were contributed by different study sites, indicating enhanced generalizability of the study findings. However, being an observational trial, this study cannot address the threats to various internal validity issues, for example, absence of randomization and blinding, the placebo effect, the therapeutic relationship with the clinician (empathy, compassion, social desirability, etc.,), the regression effect toward the mean (RTM), and the use of undisclosed concomitant treatments, if any. Another problem incurred by this clinical verification research is the subjective assessment of clinical success or failure by the investigators, subject to bias. Instead, use of validated generic tools (e.g., Glasgow Homoeopathic Hospital Outcome Scale, numeric rating or visual analog scales measuring intensity of the symptoms under question, quality of life indices, etc.,) would have enhanced the acceptability and interpretation of the findings. The causal association can be tested prospectively and systematically in all cases using modified Naranjo criteria[75] in future studies.

Conclusions

This study was conducted to clinically verify the "symptomatology" of *Cynodon dactylon* by ascertaining the symptoms improved during verification. A total of 53 symptoms of *Cynodon dactylon* were verified. Further studies are required to confirm the rest of the symptoms. The findings warrant further evaluation using modified study designs and enhanced methodological rigor. On many occasions, a limited number of prescriptions was generated for specific symptoms making interpretation difficult. Calculation of LR will enable more accurate and quantitative description of strength of the probable or claimed characteristic symptoms of the drug, based on empirical evidence instead of assumption. Hence, further confirmation of the symptoms in larger sample size, analysis of polarity, and prospective estimation of LR of the symptoms using Bayesian statistical methods in routine practice are crucial for inclusion of the symptoms in Homoeopathic Materia Medica and Repertory.

Table 3: Most frequent clinical diagnoses among the population responding well to *Cynodon dactylon* (*n*=274)

Clinical conditions/ diagnoses	*n* (%)	95% CI
RTI	81 (29.6)	24.3, 35.4
Haemorrhoids	51 (18.6)	14.3, 23.8
Diarrhea, dysentery	44 (16.1)	12.0, 21.1
Rheumatic conditions, myalgia	23 (8.4)	5.5, 12.5
Menorrhagia	17 (6.2)	3.8, 9.9
Urolithiasis	11 (4.0)	2.1, 7.3
Dyspepsia, gastritis, indigestion	10 (3.7)	1.9, 6.8
Constipation	9 (3.3)	1.6, 6.4
Fever, feverish cold, PUO	9 (3.3)	1.6, 6.4
Allergic conditions	8 (2.9)	1.4, 5.9
Epistaxis	7 (2.6)	1.1, 5.4
Headache, migraine, sinusitis	7 (2.6)	1.1, 5.4
Injury	7 (2.6)	1.1, 5.4

Clinical conditions/diagnoses recorded at least 5 times have been enlisted.
PUO: Pyrexia of unknown origin; RTI: Respiratory tract infection

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Conflicts of Interest

There are no conflicts of interest.

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Eine empirische, klinische homöopathischer Multi-Center-Studie zur Verifikationen von *Cynodon dactylon*, die eine Symptomenhäufigkeit in einer Kohorte von 340 Patienten aufzeigt.

ZUSAMMENFASSUNG

Hintergrund: Klinische Verifikationen gehören zu den laufenden Forschungsprojekten des „Council for Research in Homeopathy“, bei dem viele seltene homöopathische Arzneimittel verifiziert werden.

Ziel: Die Studie wurde zur klinischen Verifikation der Symptomatologie von Cynodon dactylon durchgeführt, um die Häufigkeit von Symptomen in „gebesserten“ und „nicht gebesserten“ Gruppen festzustellen.

Material und Methode: Es handelt sich hierbei um eine offene, empirische Multi-Center-Studie. Sie wurde an insgesamt 462 Patienten durchgeführt, wobei die vorliegenden Arzneisymptome und die Auswahlkriterien an sieben Abteilungen/Instituten des „Central Council for Research in Homeopathy“ zur Übereinstimmung gebracht werden. Die Arznei wurde in C6, C30, C200 und M1 je nach den Bedürfnissen des Patienten, gemäß homöopathischer Grundprinzipien und dem vom „Central Council for Research in Homeopathy“ erstellten Protokoll verabreicht. Die gesammelten Daten wurden in einer deskriptiven Statistik vorgestellt. Die Verteilung der reagierenden und nicht-reagierenden Population wurde mit entsprechendem Chi-Quadrat-Test oder dem exakten Fischer-Test durchgeführt.

Ergebnisse: Insgesamt wurden 340 vollständige Fälle analysiert; das Verhältnis männlich/weiblich war 204/136; Durchschnittsalter 29,7 Jahre. Klinische Erfolge wurden von Ärzten in 274 (80,6%) Fällen und Fehlschläge in 66 (19,4%) Fällen subjektiv beurteilt. Als Faustregel wurden mindestens zwei Verordnungen pro Symptom für die Auswahlliste herangezogen. Die Anzahl der verifizierten Symptome ergab sich folgendermaßen: Prüfungssymptome (n=43), Symptome aus anderen Literaturquellen (n=10), neue klinische Beobachtungen (n=57).

Fazit: Insgesamt wurden 53 aufgezeichnete Symptome verifiziert und es zeigten sich 57 neue klinische Symptome. Eine weitere Replikation und Wahrscheinlichkeitschätzung im allgemeinen praktischen Rahmen sind entscheidend für die Aufnahme der Symptome in die Literatur.

Estudio clínico, observacional, multicéntrico de verificación homeopática de *Cynodon dactylon* para mostrar la prevalencia de síntomas en una cohorte de 340 pacientes

RESUMEN

Contexto: La verificación clínica es un programa de investigación en curso del *Council*, en el que se han comprobado muchos medicamentos homeopáticos raros.

Objetivos: Este estudio se efectuó para verificar clínicamente la "sintomatología" de *Cynodon dactylon* y establecer la prevalencia de los síntomas grupos "mejorados" y "no mejorados".

Materiales y métodos: Se trataba de un estudio clínico, observacional, multicéntrico abierto. Se incluyó un total de 462 pacientes después de comprobar la coincidencia de los síntomas disponibles, el compendio del medicamento y los criterios de elegibilidad de siete unidades/institutos del *Council*. El medicamento se prescribió en las potencias de 6C, 30C, 200C y 1M, en función de las necesidades de cada paciente, cumpliendo con los principios homeopáticos y el protocolo desarrollado por el *Council*. Los datos recogidos se presentaron con estadísticas descriptivas. La prevalencia de los síntomas en la población de respondedores y no respondedores se comparó con la prueba de chi cuadrado o la prueba exacta de Fisher, según correspondiera.

Resultados: Se analizó un total de 340 casos completos; la proporción de hombres / mujeres era de 204/136 y la edad media se situó en 29,7 años. Conforme a la valoración subjetiva de los médicos, se dieron 274 (80,6%) casos de "éxito clínico" y 66 (19,4%) "fracasos". Como regla general, se consideró un mínimo de dos prescripciones para el listado de cada síntoma. El número de síntomas verificados fue el siguiente: síntomas de patogenesias (n = 43), síntomas de otras bibliografías (n = 10) y observaciones clínicas nuevas (n = 57).

Conclusiones: Se verificó un total de 53 síntomas registrados y se identificaron 57 síntomas clínicos nuevos. Es esencial replicar estos estudios y estimar la relación de probabilidad en la práctica clínica general para la confirmación de los síntomas y su incorporación en la bibliografía homeopática.

340 रोगियों पर परखे गए सायनोडोन डक्टायलन के नैदानिक लक्षणों का बहुकेंद्रिक, विश्लेषणात्मक, होम्योपैथी नैदानिक सत्यापन का अध्ययन।

सार

प्रसंगः नैदानिक सत्यापन परिषद् के सतत चलने वाले ऐसे अनुसंधान कार्यक्रम हैं जहां कई दुर्लभ होम्योपैथिक औषधियों का सत्यापन किया जाता हैं।

उद्देश्यः यह अध्ययन दूब घास (सायनोडोन डक्टायलन) के 'नैदानिक लक्षणों' को सत्यापित करने और इसमें 'सुधार' और' सुधार नहीं' श्रेणी के लक्षण ों की संभावना का पता लगाने के लिए किया गया।

सामग्री और पद्धतिः यह अध्ययन बहुकेंद्रिक, मुक्त, विश्लेषणात्मक अध्ययन था। उपलब्ध लक्षण से मिलान औषधि के संग्रह, और परिषद् की सात इकाइयों/संस्थानों में पात्रता मानदंड के साथ मिलान करने के उपरांत कुल 462 रोगियों का पंजीकरण किया गया। प्रत्येक रोगी की आवश्यकता के अनुसार होम्योपैथिक सिद्धांतों और परिषद् द्वारा विकसित प्रोटोकॉल के अनुसार 6सी, 30सी, 200सी, और 1 एम पोटेंसी दवा दी गयी। एकत्र किए गए आंकड़े विवरणात्मक सांख्यिकी के रूप में प्रस्तुत कियें गयें। अनुकूल और प्रतिकूल जनसंख्या में इन लक्षणों की व्यापकता की तुलना समुचित रुप से ची–वर्ग परीक्षण या फिशर सटीक परीक्षण का उपयोग करते हुए की गयी।

परिणामः कुल 340 मामलों का विश्लेषण किया गया; पुरुष/महिला अनुपात 204:136 व 204/136; औसतन उम्र 29.7 साल। 274 (80.6 प्रतिशत) के मामलों में 'नैदानिक सफलता' मिली और 66 (19.4 प्रतिशत) में' असफलता' चिकित्सकों द्वारा आत्मगत रूप से आंकलन किए गए। प्रत्येक लक्षण के निर्धारण के लिए न्यूनतम दो नुस्खों पर विचार किया गया। सत्यापित लक्षणों की संख्या इस प्रकार हैः प्रमाणित लक्षण (एन = 43), अन्य शास्त्र समूहों से लक्षण (एन = 10), और नए नैदानिक विश्लेषण (एन = 57)।

निष्कर्षः रिकार्ड किए गए कुल 53 लक्षणों का सत्यापन किया गया और 57 नए नैदानिक लक्षणों का पता लगाया गया। इसके अलावा होम्योपैथी साहित्य में लक्षणों की पुष्टि को शामिल करने के लिए सामान्य अभ्यास व्यवस्था में प्रतिकृति और संभाव्य अनुपात का अनुमान महत्व रखता है।