

ORIGINAL ARTICLE

A multi-centric, double-blind randomized, homoeopathic pathogenetic trial of *Buxus sempervirens*

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Objective: To elicit the pathogenetic response of *Buxus sempervirens* Linn. in homoeopathic potencies on healthy human volunteers.

Methodology: *Buxus sempervirens* drug was proved by the Central Council for Research in Homoeopathy (CCRH) through randomized, double-blind, placebo-controlled method. The proving was conducted at three centres during 2007-08. The drug was proved in 6 & 30 centesimal potencies on 57 apparently healthy volunteers, declared eligible after their pre-trial medical examination by the medical specialists and routine laboratory investigations. In its first phase of proving, volunteers were given 56 doses of placebo divided in 4 doses per day for 14 days. In the next two phases, 56 doses of pre-selected potencies or placebo as per the randomization were consumed in divided doses same as in first phase. The symptoms generated during the trial period were noted down by the volunteers and elaborated by the Proving Masters. The generated data of the drug from all three centres was compiled at the proving-cum-data processing cell at CCRH headquarters after de-coding.

Observations: Out of 40 provers who were on actual drug trial, only 23 manifested symptoms. The drug was able to generate symptoms in both the potencies to every part of the body.

Conclusion: The pathogenetic response elicited during the proving trial, expands the scope of use of the drug *Buxus sempervirens* and will benefit the research scholars and clinicians. The generated symptoms of this drug will carry more value when verified clinically.

Keywords: *Buxus sempervirens*; drug proving; homoeopathic pathogenetic trial; homoeopathy; pathogenetic effect

INTRODUCTION

The wood of the tree is used for musical, mathematical and other precision instruments, boxes, cabinet-work, combs, turnery, toys, and carving. Its leaves are purgative and diaphoretic, used in rheumatism and syphilis. The tincture of bark is employed as a febrifuge. The wood and leaves contain alkaloid buxine, which gives them bitter taste.^{1,2}

The leaves are good for headache, pain, prolapsus ani. The seeds are bitter, astringent, tonic to the heart and brain; used in stomatitis, to dry the bad humours of the liver (Yunani). The wood is diaphoretic.³

Buxus sempervirens is stated to be fatal to camels and cattle but the goats are probably immune to it.⁴ A study reveals that acetonetic extract of *Buxus sempervirens* induces cell cycle arrest, apoptosis and autophagy in breast cancer cells.⁵ Phytochemical studies on the ethanolic extract of the roots of *Buxus sempervirens* of Turkish origin have two alkaloids, which exhibited antibacterial activity against human pathogenic bacteria and weak phytotoxic activity against *Lemna minor* Linn.⁶

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The drug was mentioned by Dr. Hahnemann in his "Essay on a New Principle for Ascertaining the Curative Powers of Drugs — with a few Glances on those Hitherto Employed" and under the footnote no. 144 of Aphorism No. 267 of Organon of Medicine. The drug has also been mentioned in the "Index of Homoeopathic Provings" by Dr. Bradford where a reference to the *British Homoeopathic Journal* has also been mentioned. We could not obtain any detailed proving. It has been used on the basis of toxicological symptoms and fragmentary observations. Therefore, a systematic Homoeopathic Pathogenetic Trial (HPT) of the drug in homoeopathic potencies was necessary to elicit its pathogenetic power, which was carried out by Central Council for Research in Homoeopathy as per its approved protocol.

Botanical Name⁷ : *Buxus wallichiana* Baill.

Synonym⁷ : *Buxus sempervirens* Linn.

Family⁷ : Buxaceae

Common names¹:

Hindi : Chikri, Papri

Kashmir : Chikri

Punjab : Shamshad

Trade : Boxwood

Description

The drug appears in the form of a much-branched shrub or small tree. The leaves are nearly sessile, opposite, narrowly lanceolate or ovate, 2.5-7.5 cm., entire, usually obtuse. The plant's flowers are small, yellow-green, strongly scented, in small axillary heads or spikes; the terminal flower usually female, the rest male. Male flowers: Sepals 4; stamens 4, opposite to the sepals, far protruding; ovary rudimentary. Female flowers: Sepals 6; ovary triangular, 3-celled, top flat, the 3 corners ending in thick, short styles. Capsule ovoid, 1.3 cm. long, 3-horned; seeds 3-6, small.³

Distribution

Western and central Himalayas from Kumaon to Simla and Bhutan at 4,000-9,000 ft., and on the Salt Range in W. Punjab.⁷ They also occur in West Asia, North Africa and Europe.³

OBJECTIVE

To elicit the pathogenetic response of *Buxus sempervirens* on apparently healthy human volunteers in homoeopathic potencies.

MATERIALS AND METHODS

Study Design

The study was a randomized, double-blind, placebo controlled trial. The study was conducted according to the Drug proving Protocol designed by CCRH.

Participants and settings

The proving of this drug was conducted in 2007-08 at Drug Proving Research Unit of Homoeopathy (DPRU), Kolkata, West Bengal Regional Research Institute of Homoeopathy (RRI), Mumbai, Maharashtra and Central Research Institute of Homoeopathy (CRI), Kottayam, Kerala. Volunteers from 18 to 50 years of age, both males and females and apparently healthy and intelligent enough to record the subjective symptoms generated during proving were included in the trial. The assessment of the status of health of the volunteers was done through Pre-trial Medical Examination (PME), carried out by General Physicians, Psychiatrists, Ophthalmologists, ENT Specialists, Dermatologists, Gynaecologists, Radiologists. The routine laboratory investigations of the volunteers were done at the study centres to ascertain their health status. After recommendation of experts, 57 healthy volunteers (17 males and 40 females) were enrolled in the Homoeopathic Drug Proving Programme.

Volunteers showing any psychical or physical symptoms requiring any kind of medical treatment were excluded from the study.

A written informed consent from each volunteer was obtained before starting the proving.

Intervention

Drug

Buxus sempervirens was procured from M/s. Dr. Willmar Schwabe India Pvt. Ltd., NOIDA, in 6C and 30C potencies, in 100 ml. sealed bottles of each dilution. Globules numbering 30 were medicated with these attenuations at the CCRH headquarters.

Placebo

The placebo was made up of unmedicated globules (number 30) moistened with unmedicated dispensing alcohol (unsuccussed) and was therefore indistinguishable from verum.

The proving drug was sent to the respective proving centres in coded phials (verum) along with placebo (control).

Methodology of Proving

The study consisted of three phases. Each phase consisted of 56 doses of drug or placebo.

Phase-I: The placebo phase. It is useful in generating the prover's response to placebo and therefore, symptoms generated by the prover in this stage act as control for subsequent phases.

Phase-II: In the second phase, the proving was conducted with 6C potency.

Phase-III: In 3rd phase, the proving was conducted with 30C potency.

The volunteers were asked to take 4-6 globules of a particular potency of the coded drug, four times a day, dry on tongue.

The volunteers were instructed to note the details of their feelings/changes in mind and body, after taking the coded drug/placebo in the 'Prover's Day Book Proforma' daily.

- *If sign(s)/symptoms(s) appeared*

The volunteers were asked to stop taking the drug/placebo as soon as they felt any change or any sign(s) and/or symptoms(s) developed during the trial.

The volunteers noted down the sequence of the appearance of new sign(s) and/or symptoms(s), their progress and the number of doses after which such sign(s) and/or symptoms(s) appeared with date, time of onset and duration for which they persisted. The intake of drug remained suspended till the sign(s) and/or symptoms(s) totally disappeared. Any change in normal routine of the prover in respect of daily habits pertaining to diet, living conditions etc./any treatment taken was also noted in the Prover's Day Book Proforma.

After disappearance of sign(s) and/or symptom(s) produced by the drug, the volunteer had to wait for a further period of 07 days before taking the remaining doses of that potency following the same dose schedule as stated above. In case of further appearance of new sign(s) and/or symptom(s), the same procedure as stated above was followed till the consumption of 56 doses of that potency by the volunteer.

If the prover was experiencing the same symptom(s) what he/she had already shown, he/she was asked to stop the current quota and to switch over to the next quota after a washout period of 14 days.

Each prover was interrogated everyday by the Proving Master about the appearance of new

symptom(s) or progress of symptoms and noted those in 'Symptom Elaboration Proforma' with respect to appearance and dis-appearance of symptoms, their location, sensation/character, modalities, concomitants, extension of symptoms, causation, clinico-pathological findings and other treatment taken.

- *If no sign(s)/symptoms(s) appeared*

If no symptom was observed, the volunteers noted down as 'No Symptom' with date and time of intake of the respective dose of the drug/placebo.

Before commencing the administration of subsequent potencies (subsequent Phase) of the drug, the volunteers remained on a washout/rest period (it should be a symptom-free period between two phases of drug proving in which a volunteer does not take the drug) for 14 days and started taking next potency in the same procedure as mentioned above, till completion of 56 doses.

The same procedure was followed for the third phase.

Each volunteer was interrogated by the Proving Master to verify the sign(s) and/or symptom(s) recorded by the volunteer. The symptoms recorded in the 'Prover's Day Book Proforma' were verified by the Proving Master and completed through further interrogation with the provers in respect to their location/sensation/ modalities and concomitants, if any, in 'Symptoms Elaboration Proforma'.

During the course of proving, the volunteers were referred for specific laboratory investigation(s) to rule out any pathological cause of appearance of symptom(s). Since laboratory tests were performed to identify any correlation between the subjective and objective changes during the course of proving, the expert opinion of the honorary consultant(s) was obtained, wherever needed.

After completion of trial of all potencies, the volunteers underwent TME.

On completion of all the respective phases of the proving, the compilation of data recorded in 'Prover's Day Book Proforma', 'Symptoms Elaboration Proforma', 'Pathological Report Sheets' and 'Terminal Medical Examination sheets', was done at the Council's headquarters by the Drug Proving-cum-Data Processing Cell. After decoding, the sign(s) and/or symptom(s) generated by the volunteers kept on the drug were separated from those generated by the volunteers kept on placebo. The sign(s) and/or symptom(s) which were common to both the groups, i.e., placebo as well as drug groups were not taken into consideration while compiling the symptomatology of the drug.

Management of adverse effects

A vial of antidote was sent with each quota to each centre. In this trial *Camphora* 6C was used as Antidote as it is well known that *Camphora* can antidote nearly every vegetable medicine.⁸ The Proving Master gives the antidote to the volunteer if symptoms continue for a long time or intensity is sufficient to cause discomfort. The Proving Master is also directed to take the advice of honorary consultants and to get laboratory investigations done, if required.

Sample size

According to the Drug Proving Protocol of the Council, there should be at least 15 volunteers at one centre, 30% of whom will act as control. As the study was conducted at three centres and consisted of 57 volunteers, 15 volunteers were enrolled from DPRU, Kolkata, 18 from RRI (H), Mumbai and 24 from CRI (H), Kottayam. Therefore, out of 57 volunteers, 40 were on verum and 17 were on placebo.

Randomization and Blinding

All the volunteers were assigned code numbers and the coded drugs of different potencies (including placebo) which were supplied in separate glass phials bearing code numbers of the respective volunteer; keeping both provers and proving master blind about what prover was consuming (drug or placebo).

The codes were allotted to each volunteer and randomization was done at CCRH headquarters.

Pathogenetic effects

Pathogenetic effects (proving symptoms) are defined as all changes in clinical events and laboratory findings reported by the volunteers during a Homoeopathic Pathogenetic Trial and recorded in the final report. The incidence of pathogenetic effects per volunteer is defined as the total number of findings observed in the trial divided by the total number of provers.⁹

Pathogenetic effects were deduced

- (i) from comparison of symptoms developed in placebo phase with symptoms during intervention phases (Intraprover comparison)
- (ii) from comparison of symptoms developed by provers on control (for all phases) with provers on actual drug trial (Interprover comparison)

Results

During the pathogenetic trial, out of 40 volunteers who were in verum group, only 23 volunteers reported

symptoms consequent upon the administration of the drug. The incidence in this proving was 4.0 findings per volunteer. As no adverse effects were observed during the trial, antidote (*Camphora*) was not used.

The following symptoms were observed during the drug proving:

Information regarding the parenthesis:

- In the first parenthesis, the first number given after every symptom denotes the number of volunteers produced that particular symptom and the second number denotes the potency used.
- In the second parenthesis, the first number denotes the number of doses after which the symptom produced that particular symptom and the second number denotes the duration (in days) for which the symptom lasted.
- Symptoms produced during the pathogenetic trial of the drug were compared with the homoeopathic literature cited in the reference and those symptoms which were found in the literature, are shown in **bold**, superscribed with a numerical that refers to the respective literature.

Mind

- Irritability with anxiety. (1,6C) (8,2)
- Irritability. (1,6C) (10,4)
- Irritability with dullness. (1,30C) (8,1)
- Restlessness. (1,6C) (5,1)
- Gloomy, melancholic, wants to be alone. (1,6C) (40,1)
- Morose. (1,6C) (24,1)
- Forgetfulness. (1,6C) (46,1)
- Concentration difficult. (1,6C) (44,4)

Vertigo

- Vertigo, *agg.* rising from bed. (1,6C) (46,1)
- Dizziness with mild headache. (1,6C) (56,1)

Head

- Frontal headache, *agg.* morning, cold air, *amel.* pressure. (1,6C) (13,1)
- Frontal headache *agg.* motion. (1,6C) (44,1)
- Pain in frontal and temporal region more on right side with heaviness of head *amel.* hard pressure. (1,6C) (32,1)

- Pulsating headache, *agg.* morning, midnight (1,6C) (37,4)
- Throbbing pain in both temporal regions. (1,6C) (24,1)
- Frontal headache, *amel.* after sleep. (1,6C) (56,1)
- Mild headache. (1,6C) (20,1)
- Bursting, stitching pain in head with earache, *agg.* rest, *amel.* talking, walking. (1,6C) (45,1)
- Headache with congestion in forehead, *agg.* stooping, *amel.* at night. (1,6C) (10,1)
- Headache. (1,6C) (56,1)
- Congestive pain in temporal region with nausea and pain in eyeballs on rising in morning, *agg.* movement, *amel.* sleep, rest. (1,30C) (16,3)
- Mild, bursting headache with fullness feeling, *agg.* shaking head, *amel.* afternoon. (1,30C) (8,2)
- Dull, aching pain in forehead with nausea and prostration, *agg.* morning, *amel.* pressure, sleeping. (1,30C) (44,6)
- Occipital headache, in morning and frontal headache, in forenoon. (1,30C) (44,6)
- Throbbing pain in forehead, *amel.* after sleep. (1,30C) (44,1)
- Deep-seated congestive pain in right temple with heaviness of head, *agg.* evening, eye straining, least sound, *amel.* morning. (1,30C) (56,3)
- Congestive pain in the forehead *agg.* thinking of the complaint, exposure to sun. (1,30C) (14,2)
- Stitching pain in forehead. (1,30C) (34,1)
- Throbbing pain in back of head, spreading over orbit of eyes, *amel.* by pressure. (1,30C) (40,1)

Eyes

- Stinging pain in eyeballs which extends deep into the head. (1,6C) (52,1)
- Stye on the lower lid of right eye with pricking pain (1,6C) (44,1)
- Stye on the lower lid of left eye with pricking pain *agg.* when stooping. (1,6C) (48,2)
- Stye on the lower lid of right eye with heaviness of head. (1,30C) (52,2)
- Watering of the eyes. (1,30C) (26,1)

Ear

- Slight itching inside of both ears *agg.* fan air. (1,6C) (12,3)

Nose

- Sneezing with running nose. (1,6C) (6,2)
- Stoppage of nose with coryza, sneezing, *agg.* morning, cold air, *amel.* afternoon. (1,6C) (41,2)
- Sneezing with mucous discharge, *agg.* fan air, morning, *amel.* rest, evening. (1,6C) (41,4)
- Coryza with sneezing and thick, yellow discharge, *agg.* fan air, cold water, *amel.* covering. (1,6C) (40,12)
- Coryza with frequent sneezing and thin, bland mucous, *agg.* at night. (1,6C) (56,2)
- Sneezing at frequent intervals. (1,6C) (56,1)
- Cold with sneezing *agg.* evening, night. (1,6C) (56,3)
- Sneezing. (1,6C) (20,1)
- Running nose. (1,6C) (52,2)
- Sneezing with coryza in morning. (1,6C) (49,1)
- Stoppage of nose at night. (1,6C) (56,1)
- Post-nasal discharge in early morning. (1,6C) (24,4)
- Coryza. (1,6C) (56,2)
- Coryza with watery nasal discharge. (1,6C) (56,2)
- Stoppage of nose at night, running nose in morning with watery discharge and sneezing followed by thick yellowish nasal discharge. (1,30C) (4,9)
- Coryza with watery nasal discharge and sneezing *agg.* evening, morning. (1,30C) (40,2)
- Coryza with thin, bland nasal discharge, sneezing, obstructed feeling in left nostril, *agg.* evening, *amel.* eating, after waking. (1,30C) (26,2)
- Coryza with thin, bland discharge and sneezing on waking in morning, *amel.* hot drinks. (1,30C) (52,1)
- Sneezing, *agg.* morning. (1,30C) (24,1)

Face

- Acne on left cheek. (1,6C) (56,2)
- Small rash on face with severe itching and watery discharge. (1,30C) (16,4)
- Throbbing pain over parotid glands radiating to orbit of eyes, *amel.* pressure. (1,30C) (40,1)

- Acne of large size on left cheek. (1,30C) (1,5)

Mouth

- Irritation and itching of soft palate in morning. (1,6C) (25,4)
- Painful aphthae on inner side of upper lip. (1,30C) (56,2)
- Bitter taste with painful aphthae in mouth. (1,30C) (24,1)

Teeth

- Toothache *agg.* after sweet. (1,6C) (44,4)

Throat

- Feeling of heaviness in throat, *amel.* taking tea. (1,6C) (6,2)
- Pain and soreness in throat, *agg.* fan air, *amel.* warm drink. (1,6C) (40,1)
- Sore throat after drinking cold water. (1,6C) (56,3)
- Severe pain in throat. (1,6C) (29,3)
- Irritation and dryness in throat, *agg.* afternoon, at night, *amel.* drinking water. (1,6C) (44,4)
- Tonsils inflamed with soreness and tickling in throat *agg.* talking, swallowing. (1,30C) (29,3)
- Pain in throat with soreness, *agg.* swallowing. (1,30C) (40,1)
- Sore throat with difficulty in swallowing even saliva, *amel.* gargling. (1,30C) (44,1)
- Sore pain in throat with inflammation of tonsils with sensation as if there is a plug in the throat. (1,30C) (24,3)
- Throat pain *agg.* morning. (1,30C) (56,2)

Stomach

- Increased thirst for large quantity of water with increased appetite. (1,6C) (32,1)
- Nausea¹⁰ after eating food. (1,6C) (56,1)
- Increased appetite with empty feeling in stomach. (1,30C) (12,2)
- Appetite decreased. (1,30C) (56,2)
- Increased appetite. Craving for pickles. (1,30C) (28,4)
- Increased thirst. (1,30C) (44,1)
- Frequent nausea. (1,30C) (15,2)

- Thirst for cold water at frequent intervals. (1,30C) (48,1)

Abdomen

- Aching pain in left hypochondriac region, comes and goes suddenly. (1,6C) (28,2)
- Aching pain in pelvic region, *agg.* at night, evening. (1,6C) (48,2)
- Pain in abdomen. (1,6C) (16,1)
- Stretching pain on upper abdomen shifting to lower abdomen, *agg.* movement. (1,30C) (52,1)
- Stitching pain in lower abdomen after eating food, *agg.* lying down, pressure, *amel.* after sitting, lying. (1,30C) (46,1)
- Pain with distention of abdomen from 4 pm to 9:30 pm. (1,30C) (28,2)
- Boils in the supra-pubic region. (1,30C) (46,8)

Rectum

- Sudden loose frequent stool with pain in abdomen, *amel.* after stool. (1,30C) (21,2)
- Constipation. (1,30C) (4,1)
- Constant urging to pass stool. (1,30C) (15,1)
- Burning pain during and after defecation. (1,30C) (19,1)

Urinary Bladder

- Frequent urination¹⁰. (1,30C) (44,1)
- Profuse urination. (1,30C) (14,2)

Female

- Painful menses. (1,6C) (56,1)
- Menses delayed by 1 week to 2 months. (2,6C,30C) (56,1) (52,1)
- Severe pain in abdomen and back during menses. (1,6C) (28,3)
- Menses with clots, dark blood on second day. (1,30C) (8,8)

Larynx and Trachea

- Hoarseness of voice. (1,30C) (24,1)

Respiration

- Difficulty in breathing, wheezing on expiration with cough in evening. (1,6C) (56,1)

Cough

- Dry cough *agg.* lying. (1,6C) (56,1)
- Cough with tickling sensation in throat, hawks up mucus. (1,6C) (44,1)
- Cough with pressure in vagina while coughing. (1,6C) (24,1)
- Cough with scanty expectoration. (1,30C) (5,1)
- Dry cough. (2,6C) (44,6) (56,1) (1,30C) (1,6)
- Dry cough whole day, *agg.* in closed places, morning, *amel.* evening. (1,30C) (44,1)

Expectoration

- Thick, yellow expectoration. (1,6C) (44,3)
- Copious, thick, white expectoration in morning. (1,6C) (25,2)
- Thick, white expectoration. (1,6C) (52,2)
- Scanty, colourless expectoration. (1,30C) (5,1)

Chest

- Severe pain in ribs at noon, *amel.* after sleep. (1,6C) (44,1)
- Aching pain in posterior aspect of ribs at night. (1,6C) (48,2)

Back

- Mild pain in back. (1,6C) (56,1)
- Mild aching, stitching pain in nape of neck, *agg.* morning. (1,6C) (25,8)
- Aching pain in back. (1,6C) (28,1)
- Acne like eruptions on back followed by scar. (1,6C) (56,2)
- Pain in back associated with pain in large joints after prolonged rest. (1,30C) (44,4)
- Aching pain in the nape of the neck. (1,30C) (56,1)
- Severe pain in back causes difficulty in sitting. (1,30C) (1,12)
- Continuous pain in back. (1,30C) (1,9)
- Rashes on sacral region with severe itching, *agg.* night. (1,30C) (44,5)

Extremities

- Pain in joints. (1,6C) (50,1)

- Stitching pain in shoulder and knee joints, *agg.* morning, afternoon. (1,6C) (25,6)
- Pain and swelling in metacarpophalangeal joints. (1,6C) (44,2)
- Aching pain in elbow joints. (1,6C) (48,1)
- Aching pain in upper right extremity shifts to lower left limb and then in left upper extremity. (1,6C) (56,1)
- Severe aching pain in upper left limb especially in elbow and knee joint, *agg.* morning *amel.* after sleep. (1,6C) (29,1)
- Swelling in fingers with pain in nape of neck and shoulders. (1,6C) (56,3)
- Aching pain in upper right hand. (1,6C) (24,3)
- Pain in elbow and wrist joints *agg.* morning. (1,6C) (41,1)
- Pain in lower extremities. (1,6C) (40,1)
- Pain in leg *agg.* morning, evening. (1,6C) (29,1)
- Aching pain in leg, *agg.* hanging down, *amel.* sitting with extended leg. (1,6C) (48,1)
- Severe pain in calf muscle. *agg.* early morning, rest. (1,6C) (1,15)
- Boil on right shoulder. (1,6C) (56,4)
- Pain in knee and hip joints, *agg.* prolonged sitting. (1,30C) (20,2)
- Mild cramps in left calf muscle, *agg.* cold, walking, *amel.* hot application. (1,30C) (56,2)
- Aching pain in both legs extending from hips to feet, *agg.* night, *amel.* morning. (1,30C) (56,1)
- Persistent aching pain at right ankle joint. (1,30C) (40,2)
- Aching pain in right lower limb. (1,30C) (26,1)
- Bright red eruption above the ankle joint. (1,30C) (19,2)
- Peeling of skin around the fingernails. (1,30C) (1,1)
- Rashes on right calf region and left thigh with severe itching, *agg.* night. (1,30C) (44,5)
- Itching on buttocks. (1,30C) (16,3)

Skin

- Macular eruptions with severe itching on lumbo-sacral and para-spinal regions; both arms, neck,

left side of face and behind right knee; scratches till it bleeds. (1,6C) (28,6)

- Itching on whole body, *agg.* at night. (1,30C) (43,3)

Sleep

- Disturbed sleep. (1,6C) (56,1)
- Sleepiness. (3,6C) (20,1) (56,1) (24,2)
- Sleepiness in evening, morning. (1,6C) (32,2)

Fever

- Low grade fever, at night. (1,6C) (27,1)
- Feverish with weakness, in afternoon. (1,6C) (56,2)

Generalities

- Bodyache in morning. (1,6C) (46,1)
- Bodyache. (1,6C) (36,1)
- Pain all over the body more in back and knees, *agg.* evening, *amel.* after sleep. (1,6C) (43,2)
- Bodyache with dullness. (1,6C) (24,3)
- Tiredness *agg.* traveling. (1,6C) (28,1)
- Tiredness. (2,6C,30C) (46,1) (48,1)
- Bodyache, *agg.* prolonged rest, *amel.* after body gets warm. (1,30C) (12,2)
- Mild prostration. (1,30C) (56,1)
- Bodyache with great prostration, desire to lie down, hot sensation all over the body whole day. (1,30C) (44,1)
- Severe aching pain all over the body with backache *agg.* afternoon, night, *amel.* after sleeping. (1,30C) (26,3)

DISCUSSION

The drug was able to produce symptoms in both the potencies, i.e., 6C and 30C. 160 symptoms were produced by the volunteers in verum group in the second and third phases. 70 symptoms were produced in 30C potency and 93 symptoms were produced in 6C potency. Three symptoms were commonly produced in both the potencies. Four symptoms were produced in more than one prover viz., delayed menses, dry cough, sleepiness and tiredness. Two symptoms viz., nausea and frequent urination were found to be same as produced after infusion of the drug as mentioned by Dr. T.F. Allen.

The pathogenesis of the drug was produced in almost all organs and systems of body. During pathogenesis, the drug produced various mental symptoms like irritability, forgetfulness and difficult concentration. Various types of headache were also produced. Tonsillitis with sore pain in throat was produced during the pathogenesis of the drug; appearance of various nasal and cough symptoms is suggestive of usefulness of the drug in Upper Respiratory Tract Infection.

These symptoms may help in clinical application of the medicine.

CONCLUSION

The symptoms appeared during the trial will add to the available literature on this medicine and benefit research scholars and clinicians. These proved symptoms need further verification through clinical application in different clinical settings.

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REFERENCES

1. Govt. of India. The Useful Plants of India. New Delhi: Publication & Information Directorate, Council of Scientific & Industrial Research; 1986. p. 92.
2. Nadkarni AK. Indian Materia Medica, Vol-I. Mumbai, Bombay Popular Prakashan; 1982. p. 225.
3. Kirtikar KR, Basu BD. Indian Medicinal Plants. Vol. III. Delhi, M/s Periodical Expert Book Agency; 1981: p. 2211-12.
4. Chopra RN. Indigenous Drugs of India. 2nd ed. Kolkata, Academic Publishers; 2006. p. 544.
5. Ouardia Ait-Mohamed, Valentine Battisti, Veronique Joliot et. al. Acetonic Extract of *Buxus sempervirens* Induces Cell Cycle Arrest, Apoptosis and Autophagy in Breast Cancer Cells. Available from: <http://www.plosone.org/article/info:doi/10.1371/journal.pone.002453>, accessed on 14.3.2012.
6. Atta-Ur-Rahman Au, Ata A, Naz S et. al. New steroidal alkaloids from the roots of *Buxus sempervirens*. J Nat Prod 1999 May; 62(5) : 665-9.
7. Chopra RN, Nayar SN, Chopra IC. Glossary of Indian Medicinal Plants. New Delhi: Publication & Information Directorate, Council of Scientific & Industrial Research; 1980. p. 43.
8. Allen HC. Allen's Key Notes and Characteristics with

- comparisons of the leading remedies of the *Materia Medica* with Nosodes. 8th ed. New Delhi: B. Jain Publishing (P) Ltd.; 1997. p. 78.
9. Dantas F, Fisher P, Walach H, et. al. A systematic review of the quality of homeopathic pathogenetic trials published from 1945 to 1995. *Homeopathy* 2007; 96(1): 4-16.
10. Allen TF. The Encyclopedia of Pure *Materia Medica*, Vol. II. New Delhi: B. Jain Publishers (P) Ltd.; 1986. p. 320.

उद्देश्य: होम्योपैथिक पोटेन्सी में बक्सस सेम्परवायर्न्स का स्वस्थ मानव स्वयंसेवकों पर रोगमूलक प्रतिक्रियाओं का पता लगाना।

पद्धति: बक्सस सेम्परवायर्न्स औषधि, केन्द्रीय होम्योपैथी अनुसंधान परिषद् द्वारा यादृच्छिक डबल-ब्लाइंड, प्लासिबो नियंत्रित पद्धति द्वारा प्रमाणित की गई। औषधि का प्रमाणन 2007-08 में परिषद् के तीन केन्द्रों पर किया गया। औषधि का प्रमाणन 6 और 30 शतांश पोटेन्सियों में चिकित्सा विशेषज्ञों द्वारा चिकित्सीय परीक्षण और नियमित प्रयोगशाला परीक्षणों के उपरांत योग्य पाये गये 57 स्वस्थ स्वयंसेवकों पर किया गया।

औषध प्रमाणन की प्रथम अवस्था में प्लासिबो की 56 खुराकें 4 खुराक प्रतिदिन 14 दिनों तक स्वयंसेवकों को दी गई। अगली दो अवस्थाओं में पूर्व में चुनी हुई पोटेन्सियों या प्लासिबो की 56 खुराकें यादृच्छिकता के आधार पर प्रथम स्तर के अनुसार ही दी गई। परीक्षण अवधि में प्रकट हुए लक्षणों को स्वयंसेवकों के द्वारा लिपिबद्ध और प्रमाणन मास्टर्स के द्वारा विश्लेषित किया गया। तीनों केन्द्रों द्वारा प्रस्तुत आंकड़ों को केन्द्रीय होम्योपैथी अनुसंधान परिषद् की प्रमाणन-सह आंकड़ा प्रसंस्करण प्रकोष्ठ में डी-कोडिंग के पश्चात् संकलित किया गया।

अवलोकन: वास्तविक रूप से औषध प्रमाणन वाले 40 प्रमाणकों में से सिर्फ 23 ने लक्षणों को प्रदर्शित किया। शरीर के प्रत्येक भाग पर दोनों पोटेन्सियों में औषधि लक्षण उत्पन्न हुए।

निष्कर्ष: प्रमाणन परीक्षण के दौरान प्राप्त रोगमूलक प्रतिक्रियाएं इस औषधि बक्सस सेम्परवायर्न्स के प्रयोग क्षेत्र को विस्तारित करती हैं और यह अनुसंधान विद्वानों और चिकित्सकों के लिए बहुत लाभदायक सिद्ध होगी। नैदानिक रूप से सत्यापन के पश्चात् इस औषधि से उत्पन्न लक्षणों का और अधिक महत्त्व होगा।

खोजशब्द: होम्योपैथी; रोगमूलक प्रभाव, होम्योपैथी रोगमूलक परीक्षण, औषध प्रमाणन, बक्सस सेम्परवायर्न्स।