

DRUG PROVING

Asclepias currasavica- A multicentric, randomized, double-blind Homoeopathic Pathogenetic Trial

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Objective: To elicit the pathogenetic response of the drug *Asclepias currasavica* in homoeopathic potencies on healthy human beings.

Methodology: Drug *Asclepias currasavica* was proved by the Central Council for Research in Homoeopathy through randomized, double-blind, placebo-controlled method. The study was conducted at four centers. The drug was proved in two potencies (6C and 30C) on 67 apparently healthy volunteers who were selected after conducting pre-trial medical examination by the medical specialists and routine laboratory investigations. In the first phase volunteers were given 56 doses (04 doses per day for 14 days) of placebo. In the next two phases 56 doses (04 doses per day for 14 days) of each potency or placebo were consumed. The symptoms generated during the trial period were noted by the volunteers and elaborated by the Proving Masters. The data obtained from all the four centers was compiled at proving-cum-data processing cell at CCRH headquarters after decoding.

Observations: Out of the 44 provers who were on actual drug trial, 21 manifested symptoms. Drug was able to produce symptoms in both the potencies more or less related to every part of the body.

Conclusion: The pathogenetic responses elicited during the proving trial expands the scope of use of the drug *Asclepias currasavica* and will benefit the research scholars and clinicians. These symptoms will carry more value when verified clinically.

Keywords: homoeopathy; pathogenetic effect; homoeopathic pathogenetic trial; drug proving; *Asclepias curassavica*

INTRODUCTION

The shrub *Asclepias curassavica* in Jamaica is called "blood-flower" owing to its efficacy in dysentery. West Indian colonists called it "bastard or wild ipecacuanha".¹ Roots emetic and cathartic; used in piles and gonorrhoea. Vincetoxin, isolated from roots, resembles emetine and aconitine in pharmacological action. Juice of leaves is anthelmintic, antidysenteric and sudorific, used against cancer. Latex used to

remove warts and corns. Stem yields a fibre. Seeds also yield a fibre used for stuffing. Plant used as a fish-poison.²

The cardiac effects of asclepin, a new glycoside from the plant *Asclepias curassavica*, were studied in vitro (isolated atrium and heart of guineapig) and in vivo (anaesthetized cat) and were compared with g-strophanthin, digoxin, digitoxin. Asclepin showed a marked positive inotropic effect as evidenced by the increase in the force of contraction. It was found to be more active than the other glycosides.³

No literature related to homoeopathic proving of *Asclepias curassavica* was found. Therefore, a systematic Homoeopathic Pathogenetic Trial (HPT) of

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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 Name ⁴	: Asclepias curassavica L.
Family	: Asclepiadaceae
Common names	:
Hindi	: Kakatundi
Marathi	: Kurki
English	: Kurki, Blood flower
French	: Ipeca batard des Antilles

Description

An erect or much-branched perennial herb. Stem branched from the base, young parts covered with short hairs. Leaves 7 to 15 cm x 1.5 to 3.0 cm, thin, membranous, petiolate, oblong-lanceolate, acute or acuminate at apex, glabrous or hairy on the veins beneath; petiole 1 to 2 cm long. Flowers orange-red, shortly peduncled, cymes; pedicels pubescent, 1.5 to 2 cm long; calyx-lobes 5, lanceolate, subacute, 0.3 to 0.35 cm long, with a gland between the lobes in the sinus; corolla 5, red, reflexed, lobes lanceolate, obtuse, 0.8 cm long; stamens 5, stipitate, each with a bright orange stamina corona pollinia, adjacent pollinia uniting and forming a staminal tube; stigma 5 angled. Fruit a follicle, 6 cm long. Seeds 0.6 to 0.65 cm x 0.4 cm with thickened margin, coma (tuft of hairs) 2 to 2.5 cm long.⁴

Distribution

Native to tropical America; naturalized in many parts of India and grown as an ornamental plant.⁴

Part used in Homoeopathy

Whole plant.⁴

Potencies used

6C & 30C

Objective

To elicit the pathogenetic response of the drug *Asclepias curassavica* on apparently healthy human volunteers in homoeopathic potencies.

MATERIALS AND METHODS

Study Design

The study was conducted through placebo controlled 'Double Blind Technique.' Before commencing the study, all volunteers were screened according to

the drug proving protocol of CCRH. Ethical approval was obtained and written informed consent from each volunteer was obtained before commencing the study. Pre-trial Medical Examination (PME) was conducted to confirm health status of the volunteers. Volunteer declared as healthy, were enrolled in the study. Out of sixty seven volunteers, forty four (44) were kept on drug (verum) and twenty three (23) were control volunteers. 30% volunteers were selected as control in randomized fashion according to CCRH protocol. All volunteers were assigned code numbers and the coded drugs (including placebo) of different potencies were supplied in separate phials bearing code numbers pertaining to respective volunteers.

'Written informed consent' from each volunteer was obtained before starting the proving. PME was conducted to confirm health status of the volunteers. Volunteers declared healthy, were enrolled in the study. 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 volunteers; keeping both provers and proving masters blind about what provers were consuming (drug or placebo).

Location and duration of study

The proving was conducted at Drug Proving Research Unit (Homoeopathy), Midnapore; Central Research Institute (Homoeopathy), Kottayam; Regional Research Institute (Homoeopathy), Gudivada from 2007-08 and in Drug Proving Research Unit (Homoeopathy), Kolkata from 2008-09.

Participants

Total 67 apparently healthy volunteers from above mentioned four centers, between the age group of 18 to 50 years, comprising of 38 males and 29 females, were enrolled in this study. Pre-trial Medical Examination (PME) and Terminal Medical Examination (TME) of the volunteers were carried out by General Physicians, Psychiatrists, Cardiologists, Ophthalmologists, ENT Specialists, Dermatologists, Gynaecologists, Radiologists and their routine laboratory investigations at the centers were done to ascertain their health status. After recommendation of experts, healthy volunteers were enrolled in the Homoeopathic Drug Proving Programme.

Drug

Asclepias curassavica was procured in 6C and 30C potencies from M/s. Dr. Willmar Schwabe India Pvt. Ltd., NOIDA, in 100 ml. sealed phials of each dilution. Globules (number 30) were medicated with these

attenuations at the Council's headquarters office and sent to Drug Proving Research Units in coded phials (verum) along with placebo (control).

Placebo

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

Methods

Before commencing the study, all volunteers were screened strictly by the experts and apparently healthy provers between the age group of 18-50 years, both males and females were included in the drug proving trial. Pregnant and lactating mothers were excluded.

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

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

Phase-II : In 2nd phase, the proving was conducted with 6C potency.

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

Procedure of Proving

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 down the details of their feelings/changes in mind and body, after taking the coded drug/placebo in '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 volunteer 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. 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 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, conc-omitants, 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 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 3rd 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 '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 is sent with each quota to each center. In this trial homoeopathic potencies of Camphora were used as Antidote as it is believed that Camphora can antidote nearly every vegetable medicine.⁵ Proving master gives antidote to the volunteer if symptoms continue for a long time or intensity is much to cause discomfort. Proving Master is also directed to take advice of honorary consultants and to get laboratory investigations done, if required.

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.⁶

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 44 volunteers

who were in verum group, only 21 volunteers reported symptoms consequent upon the administration of the drug. Incidence in this proving was 2.77 findings per volunteer. Any adverse effects were not observed during the trial, so antidote (Camphora) was not used.

The following symptoms were observed during the drug proving:

Information regarding the parenthesis

- In the first parenthesis, the 1st number given after every symptom denotes number of volunteers produced that particular symptom and 2nd number denotes potency used.
- In second parenthesis, the 1st number denotes number of doses after which symptom produced that particular symptom and the 2nd number denotes the duration (in days) for which the symptom lasted.

Mind

- Restlessness at night. (1,6C) (40,1)
- Fear of being alone, amel. music. (1,6C) (34,1)
- Sadness with sick feeling and tendency to weep; memory loss for short term, agg. morning. (1,6C) (18,3)
- Difficult concentration. (1,6C) (56,13)
- Dullness. (1,6C) (27,5)
- Fear of ghost at night. (1,30C) (24,1)

Vertigo

- Vertigo with blurred vision and watering of eyes, agg. morning. (1,30C) (29,1)

Head

- Headache in morning. (1,6C) (24,3)
- Mild headache agg. night. (1,6C) (56,1)
- Headache at night with heaviness in head amel. morning. (1,6C) (24,1)
- Severe headache with heaviness and mild fever during daytime. (1,6C) (53,1)
- Headache with disturbed sleep, amel. after vomiting. (1,6C) (27,1)
- Bursting pain in head; starts in morning, increases at noon, agg. noise, heat of sun, talking, amel. evening. (1,6C) (54,2)

- Frontal headache with heaviness of head and pain in eyes agg. evening, night, noise, light, amel. morning, after bath. (1,6C) (27,3)
- Frontal headache with drowsiness at 11 am. (1,6C) (15,3)
- Severe congestive headache on forehead and temples with heaviness of head. (1,6C) (45,4)
- Headache on temples and forehead, agg. morning. (1,6C) (12,2)
- Aching and cutting pain in temples. (1,6C) (6,1)
- Hammering type of pain in occipital region and pressing pain in forehead agg. 8 pm to 2 am. (1,6C) (1,9)
- Occipital headache with heaviness agg. morning rising from bed, walking, motion; amel. lying down. (1,6C) (36,6)
- Headache with heaviness of head. (1,30C) (33,1)
- Congestive headache. (1,30C) (56,1)
- Throbbing headache at glabellar region. (1,30C) (36,1)
- Pain in right side of forehead. (1,30C) (24,1)
- Pain in frontal and temporal region. (1,30C) (36,1)
- Pain in forehead as if tight bandage and occipital region as if hammering, agg. morning, evening. (1,30C) (45,8)
- Throbbing pain in forehead and temples in forenoon persisted till evening. (1,30C) (34,2)
- Stitching pain over the vertex from 11 am to 1 pm. (1,30C) (32,2)
- Occipital headache in the evening, agg. talking, laughing, amel. rest. (1,30C) (38,1)
- Stitching pain over right occipital region in the evening. (1,30C) (27,1)
- Itching of scalp. (1,30C) (56,1)
- Styes on lower lid of right eye with tingling sensation in upper eyelid, itching and pain on blinking of eyes. (1,30C) (31,4)
- Stye with stinging pain on left upper eyelid, amel. cold application. (1,30C) (20,2)
- Small hard nodule above the medial canthus of right eye, swelling with stitching pain and itching agg. closing eyes, touching. (1,30C) (43,9)
- Lachrymation after coughing in forenoon. (1,30C) (56,1)

Ear

- Itching in both ears. (1,6C) (27,2)
- Severe earache. (1,6C) (45,1)
- Pain in left ear at 7 pm and disappearing suddenly. (1,6C) (47,1)
- Earache with sensation of some warm substance flowing from ear followed by itching. (1,30C) (33,7)

Nose

- Coryza with watery discharge, agg. morning, amel. evening. (1,6C) (56,1)
- Watery coryza. (1,6C) (56,1)
- Itching on tip of nose with sneezing, amel. by rubbing. (1,6C) (27,2)
- Sneezing with nasal discharge. (1,6C) (27,2)
- Sneezing with watery discharge agg. early morning. (1,6C) (56,1)
- Stoppage of nose with coryza agg. cold. (1,30C) (39,3)
- Coryza with sneezing and watery discharge agg. after waking in morning, fan air. (1,30C) (54,3)
- Coryza with sneezing and watery discharge agg. morning. (1,30C) (32,4)
- Coryza with sneezing and nasal obstruction agg. at night. (1,30C) (20,3)
- Coryza. (1,30C) (45,8)
- Blockage of nose with difficulty in breathing agg. morning, cold air, fan air. (1,30C) (12,1)
- Stoppage of nose followed by coryza. (1,30C) (56,2)
- Sneezing afternoon and stoppage of nose at night. (1,30C) (38,3)

Eyes

- Itching in eyes. (1,6C) (27,2)
- Itching and swelling of the right lower eyelid with redness of conjunctiva and severe pain on closing eyes, agg. evening. Next morning, itching and redness appearing in left lower eyelid. (1,6C) (23,4)
- White scales on the eyelids with itching. (1,6C) (12,3)

- Sneezing without nasal discharge, agg. evening, night. (1,30C) (47,2)

Face

- Piercing pain in right mandibular joint radiating to root of teeth of right side agg. lying on painful side. (1,6C) (23,1)
- Itching and dryness; more around the eyes with wrinkles on left side agg. washing, applying soap, evening, amel. applying oil. (1,6C) (18,5) (25,12)
- Pustule on root of nose. (1,30C) (40,4)
- Pustules with itching. (1,30C) (56,1)
- Burning sensation. (1,30C) (15,2)
- Small reddish eruptions. (1,30C) (44,1)

Mouth

- Dryness of mouth. (1,6C) (22,1)
- Sensation as if something sticks on the posterior part of tongue. (1,6C) (27,1)
- Aphthae on left side of lower lip. (1,6C) (18,1)
- Pain and spongy feeling in gums after dinner. (1,30C) (24,1)
- Painful white patch at tip of tongue with excessive salivation, agg. spicy food, touch. (1,30C) (42,4)
- Tip of tongue red with burning pain agg. eating. (1,30C) (36,2)

Throat

- Pain in throat agg. swallowing liquids, night, talking. (1,6C) (45,4)
- Cutting pain in throat with soreness radiating to left ear; agg. bathing, evening. (1,6C) (15,1)
- Sore throat. (1,6C) (56,2)
- Tickling sensation in throat with hawking tendency agg. night morning. (1,30C) (32,7)
- Tickling in the throat. (1,30C) (52,1)
- Pain in throat with soreness agg. eating, drinking. (1,30C) (38,5)
- Sore throat agg. morning, evening, cold weather. (1,30C) (15,3)
- Pain in throat with soreness agg. morning, evening. (1,30C) (12,1)
- Phlegm in the throat with nausea, amel. hawking. (1,30C) (56,3)

- Irritation in throat with soreness, mucous comes out on least hawking agg. night after 8 pm. (1,30C) (15,3)
- Sensation of something stuck in the throat. (1,30C) (12,1)
- Tickling in throat with soreness, irritation at night agg. fan air, lying down. (1,30C) (56,3)
- Sore throat with accumulation of mucous, resulting in cough. (1,30C) (14,3)

Stomach

- Increased thirst for cold water in small quantity. (1,6C) (22,1)
- Craving for ice-cream. (1,6C) (34,1)
- Gastric disturbances with burning in stomach. (1,6C) (27,5)
- Loss of appetite. (1,6C) (56,1)
- Vomiting of undigested food in morning after breakfast. (1,6C) (45,2)
- Increased thirst. (1,6C) (21,2)
- Decreased appetite, heaviness in stomach with nausea. (1,6C) (56,1)
- Pain in epigastrium, agg. night, amel. rubbing, pressure. (1,6C) (56,1)
- Increased thirst at night. (1,30C) (12,5)
- Increased thirst for cold water at night. (1,30C) (30,6)
- Nausea and vomiting at night. (1,30C) (20,1)
- Burning in epigastrium with abdominal distension and pain in lower abdomen followed by nausea and vomiting; then weakness. Pain in lower abdomen, amel. after vomiting. (1,30C) (39,1)
- Putrid belching and heartburn. (1,30C) (8,2)

Abdomen

- Flatulence & borborygmus. (1,6C) (27,4)
- Aching pain in lower abdomen in afternoon followed by tenderness. (1,6C) (26,2) (44,2)
- Cutting pain in lower abdomen at 4:30 pm, agg. slightest movement, sitting, during micturition, amel. after drinking water. (1,30C) (15,3)
- Pain in lower abdomen with severe prostration and abdominal distension after 4 pm., amel. lying on abdomen, sitting. (1,30C) (39,1)

- Burning in abdomen with distension and gurgling sound in afternoon. Heaviness and tightness of abdomen, amel. drinking hot water, passage of flatus. (1,30C) (55,1)
- Distension of abdomen. (1,30C) (8,1)
- Pain in the lower abdomen and sacral region extending to the lower limbs along the thigh agg. morning; amel. noon. (1,30C) (32,1)
- Pain in lower abdomen during menses; menses early, flow clotted, dark. (1,6C) (12,5)
- Menses appearing 4 days early. (1,6C) (32,1)
- Spasmodic dysmenorrhoea, amel. pressure. (1,30C) (55,1)
- Crampy pain over the legs, back and abdomen during menses. Pain radiating to thighs, legs & lumbar region, amel. evening. (1,30C) (30,1)

Rectum

- Diarrhoea. (1,6C) (27,3)
- Constipation with pain in the lower abdomen. (1,6C) (52,2)
- Constipation with no urging. (1,6C) (52,3)
- Watery stool with abdominal pain in morning. (1,6C) (5,1)
- Watery diarrhea with burning and tenesmus, agg. after eating. (1,30C) (39,1)
- Constipation with ineffectual urging for stool. (1,30C) (16,2)

Urinary Bladder

- Frequent urging to urinate; passes small quantity with burning pain in urethra while urinating. (1,6C) (12,2)
- Painful and difficult urination. (1,30C) (15,2)

Male

- Itching and burning eruption on scrotum and in inguinal region with watery discharge, agg. after scratching, morning, hot application, cold water, amel. open air. (1,6C) (36,7)

Female

- Menses became normal and regular (earlier dysmenorrhoea). (1,6C) (27,5)
- Menses- 7 days early with pain in lower abdomen and back. (1,6C) (44,1)
- Menses scanty, blackish. (1,6C) (18,1)
- Early menses with backache and aching pain in legs. (1,6C) (40,2)
- Profuse flow on the 2nd day of menses. (1,6C) (21,1)
- Spasmodic pain in the lower abdomen during menses; extending to lower limbs with great prostration; amel. rest, lying on abdomen, warm application. (1,6C) (56,2)

- Pain in lower abdomen, sacral region, lower limbs during menses, with nausea, eructations and excessive yawning. (1,30C) (56,1)
- Menses delayed by 4 days. (1,30C) (22,1)
- Stitching pain in the right ovarian region from afternoon till evening. (1,30C) (36,1)

Larynx & trachea

- Hoarseness of voice. (1,30C) (32,1)
- Hoarseness of voice with bad taste in the mouth agg. morning, evening. (1,30C) (55,6)

Cough

- Sudden dry cough in morning. (1,6C) (27,6)
- Dry cough agg. evening, night. (1,6C) (12,2)
- Mild cough. (1,6C) (45,1)
- Dry cough with tickling sensation in throat. (1,30C) (32,6)
- Cough with throat pain, agg. morning, night, talking, amel. drinking water. (1,30C) (40,5)
- Tickling cough in afternoon amel. evening. (1,30C) (55,4)

Expectoration

- Scanty expectoration. (1,30C) (32,1)

Chest

- Stitching pain in the region of heart. (1,6C) (48,1)
- Feeling of suffocation in chest with severe belching. (1,6C) (8,1) (56,3)
- Rash on chest. (1,30C) (42,3)
- § Reddish pimple like eruptions over the chest region. (1,30C) (44,1)

Back

- Severe pain in lumbar region extends to cervical region. (1,6C) (27,1)

- Pustule on lower back with redness and severe itching; pricking, throbbing pain with slight rise of temperature. Itching amel. scratching. (1,6C) (56,5)
- Vesicular eruption on back. (1,30C) (42,1)
- Backache in morning. (1,30C) (49,1)
- Painful pimples on back. (1,30C) (56,1)
- Cutting, breaking pain below coccyx region, agg. least movement, sitting position, amel. drinking water. (1,30C) (15,3)
- Aching pain over the left scapular region radiating to the left arm. (1,30C) (32,1)
- Reddish pimples on back. (1,30C) (44,1)
- Backache, agg. exertion, amel. rest, pressure. (1,30C) (48,2)
- (1,30C) (39,5)
- Maculopapular eruptions on left hand and legs with pain in left shoulder, agg. elevation, amel. at night. (1,30C) (55,1)
- Small reddish pimple like eruptions over the shoulders with stitching, burning pain, agg. at night, morning. Pain over the tip of the right shoulder joint. (1,30C) (44,3)
- Burning pain over the thighs and legs. (1,30C) (44,3)
- Aching pain over the knee joint agg. afternoon, amel. evening. (1,30C) (44,3)
- Aching pain over the anterior aspect of the right ankle joint. (1,30C) (47,1)

Extremities

- Aching pain and weakness of both upper and lower extremities, agg. movement, amel. rest. (1,6C) (22,7)
- Piercing pain in left sole agg. standing, walking; Pain, shifting in nature, initially in left elbow, then left knee, appearing and disappearing frequently; amel. rubbing; Sensation as if thighs and legs are hard. (1,6C) (22,5)
- Pain in left knee joint and left elbow with shivering of left hand in evening. (1,6C) (18,2)
- Skin of sole dry, exfoliated more of left heel with itching agg. evening. (1,6C) (27,4)
- Aching pain in the legs below the knee with difficulty in walking, agg. at night. (1,6C) (52,1)
- Mild pain in lower limbs amel. sleep. (1,6C) (44,1)
- Burning pain in thighs with itching and irritability agg. warmth. (1,6C) (25,10)
- Itching on buttocks, agg. evening, night. (1,6C) (53,7)
- Weakness of legs in evening. (1,30C) (11,1)
- Painful peeling off of skin of middle fingers at margin of nails. (1,30C) (36,1)
- Peeling of skin of both heels with itching agg. evening. (1,30C) (56,8)
- Aching pain in lower limbs agg. hanging legs, evening, amel. elevating legs, morning. (1,30C) (19,1)
- Maculopapular eruptions esp. on medial aspect of both arms and dorsal aspect of feet with itching.

Sleep

- Disturbed. (1,6C) (40,1)
- Sleeplessness with restless. (1,6C) (45,2)
- Sleepiness in morning with weakness. (1,30C) (12,3) (35,1)

Skin

- Itching all over the body. (1,6C) (27,5)

Fever

- Feverishness in morning amel. fan air. (1,6C) (56,1)
- Fever at 9 pm, continued next day. (1,6C) (45,3)
- Fever (100 to 102 °F) from 5 pm to 2 am. (1,6C) (1,7)
- Fever with cold. (1,30C)(39,1)(45,1)
- Feverish with prostration. (1,30C) (40,2)
- Feverish with great weakness. (1,30C) (33,1)

Generalities

- Bodyache amel. pressure. (1,6C) (27,1)
- Slight bodyache. (1,30C) (15,2)
- Prostration in morning. (1,30C) (27,1)

Discussion

Drug was able to produce symptoms in 6C and 30C potencies. 176 symptoms were produced by the volunteers in verum group in 2nd or 3rd phases. 83 symptoms were produced in 6C potency and 93 symptoms produced in 30C potency.

The pathogenesis of the drug was produced in almost all organs and systems of body. The drug produced mental symptoms like restlessness, fear of being alone and ghost, difficult concentration, depression and dullness. During pathogenesis drug produced various types of headache; upper respiratory tract infection with symptoms like sneezing, coryza, dry cough, tickling sensation and pain in throat etc. The drug also produced symptoms in gastro-intestinal tract which is manifested with pain and burning in stomach with vomiting of undigested food, flatulence, borborygmus and distension of abdomen. Some other symptoms were also produced during the study are peeling off of the skin of heels, sole and fingers, early menses. A clinical symptom was also produced in the study in which a prover who used to have dysmenorrhoea, menses became normal during the trial. Some of the symptoms lasted for long duration like difficult concentration, hammering type of pain in occipital region, earache with sensation of some warm substance flowing from ear followed by itching, itching and dryness of face, increased thirst for cold water at night, burning pain in thighs with itching and irritability, peeling of skin of both heels with itching and fever (100o-102oF) from 5pm to 2 am.

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 the research scholars and clinicians. These proved symptoms need further verification through clinical application in different clinical settings.

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