

CLINICAL

Homeopathy in the treatment of tubercular lymphadenitis (TBLN) – An Indian experience

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Tuberculosis (TB) has been known since antiquity. In spite of effective antibiotic treatment, it is still a major worldwide public health problem. Endogenous factors are important in the development of active disease. Homeopathic medicines have the potential for immune-modulation and hence to influence endogenous factors in disease.

In India, patients with tubercular lymphadenitis (TBLN) often consult homeopaths but such cases are seldom documented. The objective of the present study is to document such experience. A retrospective exploratory study of 25 positively diagnosed cases of TBLN has lead to the development of a homeopathic regime consisting of a patient specific constitutional medicine, one disease specific biotherapy (Tuberculinum) and Silicea 6x as supportive medicine. Homeopathy can be used as a complement to conventional anti tubercular treatment (ATT) with beneficial results.

Further validation in controlled trials with immunological markers is required.
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Keywords: Tubercular lymphadenitis; Endogenous factors; Retrospective exploratory study; Homeopathy; Constitutional treatment; Tuberculinum; Silicea

Introduction

Tuberculosis (TB) has been known since antiquity. In spite of effective antibiotic treatment regimes, it is still a major, worldwide public health problem, resulting in over 8.8 million new cases and nearly two million deaths per year.¹

Only 10% of TB mycobacteria reach the pulmonary alveoli after exposure to infection, 90% are ejected by the action of the mucosa lining the upper respiratory tract. In the alveoli, the bacteria are ingested by non-specifically activated macrophages. The degree of bactericidal activity of macrophages is dependent on innate non-specific immune resistance to infection. Once infected (latent TB) a person can develop TB at any time but only 10% of infected

persons develop active disease. The progression of latent TB to active disease is directly related to patient's degree of immune-suppression and CD+ cell count. Various physical or emotional stresses may trigger progression of infection to disease due to weakening of immune resistance. Hence, endogenous factors are important in the development of active disease.^{2,3} Various experiments suggest that homeopathic medicines have immune-modulation potential and can treat endogenous factors in disease.^{4–9}

Homeopathy was widely used in the treatment of TB in the 19th century. The great homeopath Clemens von Boenninghausen became interested in it, following his own successful treatment, by Weihe, of what was considered to be a hopeless case of purulent TB.¹⁰ Hempel in 1859¹¹ and Hughes in 1878¹² advocated its use in TB, and Burnett reported 54 cases of various types of TB including 21 cases of TB lymphadenitis (TBLN) successfully treated with the nosodes *Tuberculinum (Tub)* or *Bacillinum (Bac)*.¹³ Kent also reported cure of TBLN with *Tub*.¹⁴ The discovery of streptomycin¹⁵ and other antibiotics led to a decline in the use of general measures and homeopathy for TB.

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In India, TB is endemic with a population incidence of all types of about 1.5%.¹⁶ TBLN is the commonest clinical type of extra-pulmonary TB.^{1,16} The Indian National Tuberculosis Control Programme was started in 1962 and revised (RNTCP) in 1993.¹⁷ The recommended anti tubercular treatment (ATT) consists of regimes of multiple antibiotics. Category I (Cat I) consists of thrice weekly doses of: *Isoniazid (INH)*, *Rifampicin (R)*, *Ethambutol (ETH)*, *Pyrazinamide (PYZ)* for 2 months then *INH* and *R* for 4 months. It is given to new smear positive, seriously ill smear negative and seriously ill extra-pulmonary cases. Category II (Cat II) consists of thrice weekly doses of: *INH*, *R*, *ETH*, *PYZ*, *Streptomycin (STR)* for 2 months then *INH*, *R*, *ETH*, *PYZ* for one month then *INH*, *R*, *ETH* for 5 months. It is given to smear positive, relapse, failed and default cases. Category III (CAT III) consists of thrice weekly doses of: *INH*, *R*, *PYZ* for 2 months then *INH*, *R* for 4 months. It is given to non-seriously ill smear negative and extra-pulmonary cases. DOTS (Directly Observed Treatment-Short course) strategy has been adopted to reduce default rate and increase the compliance of patient: ATT is administered in front of physician or health worker. But the RNTCP has not prevented the emergence of multi-drug resistant (MDR) and extreme drug resistance (XDR) strains of mycobacteria.

The World Health Organization (WHO) estimates that 80% of the population of developing countries relies on traditional medicines.¹⁸ Medical pluralism is a unique feature of the Indian health care system and homeopathy is the second most popular system in India. Its infrastructure includes 234 hospitals, 5910 dispensaries, 217,860 registered practitioners and 182 colleges.¹⁹ TB patients often attend homeopathic institutions in search of safe and effective, alternative/complementary treatment. There are a small number of case reports of successful treatment of pulmonary TB (PTB) using homeopathy in India.²⁰ Most such cases are not reported due to inadequate case record management, thus the real experiences have never been documented. The objective of this study is to document such experiences, evaluate its role and suggest a treatment strategy if possible.

Patients and methods

We conducted a retrospective exploratory study of TBLN cases, treated with homeopathy, at Nehru Homeopathic Medical College and Hospital, New Delhi, from 2000–2006.

Inclusion criteria

Patients with enlarged lymph node (LN), size $>1.5 \text{ cm}^2$. Diagnosis was confirmed by fine needle aspiration cytology (FNAC) which has 88–90% sensitivity.²¹ FNAC was performed either before or within 15 days of start of treatment except in hilar LN. Histopathology report of granulomatous inflammation with caseous necrosis consistent with TB with/without acid fast bacilli (AFB) (stain, no culture) was considered positive.

Patients with a regular follow up till the lymph nodes regressed significantly.

Data collected: Name, age, sex, profession, socio-economic status, duration of disease, diagnostic and subsequent investigation, reportorial graph (RG), duration of treatment, patient's response, follow up and observations. The assessment of the response and duration of treatment was by reduction in size and number of LN, only when the size regressed by 75% or more, the final assessment of duration of treatment, general symptoms, weight, haemoglobin, erythrocyte sedimentation rate (ESR) and chest X-ray; FNAC was not repeated.

Medication

Homeopathic medicines were dispensed in pills made of cane sugar, size no. 30, 4 medicated pills = 1 dose, those in decimal potency 4 tablets (1 grain each) = 1 dose, manufactured by SBL, India. One patient (20) was prescribed a millesimal potency. *Tuberculinum* was *Tuberculinum bovinum*.

Results

Twenty five cases of TBLN meeting the inclusion criterion, 16 male and 9 female of various ages were included (Table 1). The salient features of each case are summarized in Table 2.

Treatment was stopped when the LN became soft and size reduced to less than 1 cm^2 . Complete recovery of constitutional symptoms was observed in all these cases. Lymph nodes became impalpable in 11 cases and reduced by 75% in remaining 14 cases. All but one patient gained weight haemoglobin increased in all cases (mean $2.124 \text{ mg}\%$, SD 1.05) and ESR reduced (mean 30.96 mm , SD 15.12).

The indications for homeopathic medicines prescribed at least in two cases are given in Table 3.

Some patients continued to visit the clinic, for treatment of various other ailments, after treatment of TBLN had been stopped (cases 2, 3, 6, 7, 14, 16, 19, 21). None had a recurrence.

Illustrative case histories

Five illustrative cases are described here:

Case 2 (treated from 16/08/2001 to 22/07/2002)

24 Years, female, Hindu, Housewife: She had TBLN with stiffness of neck for 3 years; FNAC of the right cervical LN on 19/03/2001 showed "areas of necrosis in which numerous AFB are identified, compatible with TB", was treated

Table 1 Age and gender distribution of included patients

Age (y)	Male	Female	Total
0–15	10	1	11
16–30	4	3	7
31–45	2	4	6
>45	0	1	1
Total	16	9	25

Table 2 Profile of cases with their essential features

No	Age	Gender	Location/ duration of disease	Chest/ X-ray/ Sputum	Previous ATT	Haemoglobin (g)		ESR initial (l)		ESR initial (f)		Weight gain		Period (months)	Medicines	Improvement (% reduction of LN volume)
						initial (l)	final (f)	initial (f)	final (f)	initial (V)	final (V)	initial (kg)	final (kg)			
1	15 y	M	Inguinal 1 y	Hilar LN	Not taken	9.2	13.5	4.3	50	15	35	4	21-08-00 16-04-01 8 m	Sil 200, Sil6x, Tub 200	75%	
2	24 y	F	Cervical 3 y	Rt para-tracheal LN. Infiltration Lt up & mid zone. AFB negative	Cat III 5 m	9.2	12	2.8	38	20	18	5	16-08-01 22-07-02 11 m	Phos 30, Tub 200, Calc-p6x	75%	
3	8 y	M	Cervical 4 months	Hilar LN	Not taken	10.6	12.1	1.5	38	21	17	3	5	Calc 30, Tub 200, Sil 6x	75%	
4	18 y	F	Cervical, Axillary 1 y	Normal	Cat I 6 m	10	12	2	55	20	35	4	27-05-02 13-10-03 10 m	Phos 30 Calc 30, Tub 200	75%	
5	28 y	M	Cervical 1 y	Healed pulmonary lesions	Cat I 6 m	9	11.5	2.5	34	20	14	2	30-04-02 24-02-03 10 m	Calc 30	75%	
6	7 y	M	Cervical & Rt Post auricular 4 y	Lt hilar LN AFB negative	Not taken	10	12.5	2.5	65	22	43	4	23-09-02 30-12-02 3 m	Calc-f 6x, Tub 200, Puls 30	75%	
7	5.5 y	M	Bilateral Anterior cervical 3 m	Nodular lung lesion in rt upper lobe with prominent hilar shadow	Not taken	10.5	12.5	2	46	15	31	1	06-08-02 12-06-03 10 m	Sil 200, Sil6x, Tub 200	75%	
8	5 y	M	Bilateral cervical 6 m	Rt hilar LN enlarged	Not taken	12	13	1	62	32	30	1	26-12-02 06-11-03 11 m	Puls 30, Tub 200, Sil 6x, Staphycoc 200	75%	
9	17 y	M	Rt anterior cervical 3 m	Rt Pleural thickening with Lt hilum enlarged AFB negative	Not taken	11	11.2	0.2	32	10	22	Static	30-01-03 16-10-03 9 m	Sulph 30, Tub 200, Sil 6x, Ars 30	100%	
10	24 y	M	Rt cervical 1 m	Bilateral hilar enlargement AFB negative	Not taken	11.5	12	0.5	47	20	27	5	06-03-03* 15-11-04 20 m	Phos 30, Sil 6x, Tub 200	75%	
11	7 y	F	Sub-mental 2 m	Hilar LN prominent with calcified foci. AFB negative	Not taken	7.5	10.5	3	40	24	16	2	17-04-03 17-10-03 6 m	Kali-bi 30, Sil 6x, Tub 200, Puls 30	75%	

Table 2 (continued)

No	Age	Gender	Location/ duration of disease	Chest X-ray/ Sputum	Previous ATT	Haemoglobin (g)		ESR initial (l), final (F), variation (V)		Weight Homeopathic treatment		Improvement (% reduction of LN volume)			
						I	F	V	I	F	V		gain (kg)	Medicines	Period (months)
12	37 y	F	Sub- mandibular 2 m	Normal	Not taken	12	13	1	40	16	24	2	12-06-03 14-12-03 6 m	Puls 30, Tub 200, Sil 6x	100%
13	9 y	M	Bilateral Cervical 1 y	Rt Hilar prominence AFB negative	Not taken	9	11.5	2.5	58	26	32	4	16-10-03 23-09-04 11 m	Dros 30, Sil 6x, Tub 200	100%
14	20 y	M	Rt cervical 6 m	Old healed lesion in the Rt upper lung zone	Cat I 6 m	12.5	14.5	2	46	20	26	5	22-09-04 24-02-05 6 m	Lyc 200, Tub 200, Sil 6x	100%
15	49 y	F	Anterior cervical 6 m	AFB negative	Cat III 6 m	12.5	13.5	1	36	10	26	2	16-10-04 20-01-05 3 m	Calc-i 30, Tub 1 M	100%
16	35 y	M	Cervical & supra- clavicular 1 yr	PTB	Cat I 9 m	10	13	3	84	22	62	1	11-10-04 10-03-05 5 m	Puls 30, Ars-I 30, Tub 200, Sil 6x	100%
17	14 y	M	Inguinal 3 y	Normal AFB negative	Cat III 6 m	9.5	12	2.5	95	25	70	3	01-09-05 03-01-06 6 m	Lyc 200, Tub 200, Sil 6x	75%
18	42 y	F	Cervical 2 m	Old healed lesion in Rt mid zone suggestive of TB AFB negative	Not taken	11.5	13	1.5	76	26	50	4	30-06-05 31-10-05 4 m	Sil 30, Tub 200, Sil 6x	100%
19	11 y	M	Fever for 1 wk and pain in the back for 2 wk	Lt hilar and para-tracheal LN enlarged, no active lung lesion	Not taken	11.7	12.5	0.8	18	8	10	4	08-09-05 12-12-05 3 m	Puls 30, Calc-p 6x, Tub 200, Ip 30	100%
20	20 y	F	Bilateral cervical 18 m	Bilateral prominence of hilar regions	Not taken	8.5	11.5	3	84	26	58	3	16-11-05 22-02-06 3 m	Lyc 0/1, Tub 200	75%
21	31 y	F	Rt cervical 6 m	Normal	Cat II 8 m	10.5	12.5	2	42	18	24	2	12-02-05 10-05-05 3 m	Ars 200, Tub 200, Sil 6x, Nat-m 200	75%
22	35 y	F	Cervical 7 m	Normal	Cat III 1 m	10.4	12.8	2.4	54	24	30	3	15-02-05 08-06-05 4 m	Sulph 30, Sil 6x, Tub 200	75%

23	25 y M	Rt Cervical 3 y	Normal	Cat III 8 m	9.6	12.6	3	46	18	28	2	24-02-05 16-06-05 4 m	Lyc 30, Tub 200, Sil 6x, Lyc 200	100%
24	9 y M	Cervical & axillary 3 m	Lt hilum prominent, Rt costophrenic angle blunted AFB negative	Not taken	9.8	14.1	4.3	28	9	19	3	02-01-06 17-04-06 3.5 m	Bry 30, Ferr-p 6x, Tub 200, Sil 6x	100%
25	5 y M	Bilateral cervical 3 m	Normal	Not taken	9.2	11	1.8	38	11	27	2	05-08-06 13-11-06 3 m	Calc 30, Tub 200, Sil 6x	100%

* Treatment interrupted for 15 months.

with ATT Cat III for four and a half months, treatment stopped due to intolerable gastro-intestinal symptoms.

Homeopathy consultation on 16/08/2001 for the complaints of weight loss of 4 kg in previous five months, lassitude, vertigo, backache, pain in abdomen and sour eructation, cold hands and feet and swellings in the neck. 3-4 enlarged matted LN in the right anterior cervical region, 1 × 3 cm, not adherent to the overlying skin (Figure 1a).

Calcarea phosphorica (Calc-p) 6x, four times a day and *Tub 200c* one dose a month for first four months was prescribed. The initial response was slow improvement in general condition, backache, dyspeptic symptoms and in the size of LN but no change in cough, chest pain, and developed one new lymph node.

The patient was reviewed on 27/12/2001 (Figure 1b). *Phosphorus (Phos) 30c* and *Tub 200c* one dose every 15th day (alternately) and *Calc-p 6x* three times daily till 22/07/2002 when the LN were less than 1 cm² with marked reduction in symptoms and gain in weight of 5 kg.

Although the treatment for TBLN was stopped, patient continued to attend for various ailments. One episode of chilblains in winter recovered with *Calc-p 6x* and two episodes of sore throat and fever with *Belladonna 30c* followed by a single dose of *Tub 1M*. There was no recurrence of TBLN. The patient had gained further 6 kg in weight.

Observation: Patient had intolerable side-effects and loss of weight from ATT, but could complete homeopathic treatment without adverse effects, and remained well for 18 months after treatment. Use of *Tub* in higher potency, after an acute episode of illness had satisfactory results.

Case 4. 17/05/2002 to 13/10/2003

18 Years, female, Hindu, Student: She suffered from TB abdomen one year ago, treated with CAT I ATT for 6 months and recovered from abdominal complaints. Soon after the death of her father from pulmonary TB (PTB), she developed gradually increasing hard LN, two in the right axillary and one in anterior cervical region; each about 2 × 2 cm, painless, hard and mobile. FNAC on 30/04/2002 reported, "*granulomatous inflammation with caseation necrosis, no AFB seen*". *Phos 30c* one dose on 17/05/2002 was given, (Figure 2). After initial improvement, she complained of fever, weakness and profuse sweat on head while sleeping on 03/06/2002. *Calcarea carbonica (Calc) 30c* × 1 dose every 15 days was prescribed.

The patient steadily and slowly started improving. 1 dose of *Tub 200c* prescribed twice on 30/12/2002 and 10/03/2003 as intercurrent remedy. The size of LN regressed consistently with improvement in all the associated symptoms in 17 months.

Observations: Patient developed TBLN despite taking ATT for TB abdomen. The improvement was static after initial recovery with *Phos*, but faster with *Calc* which appeared to be a better similimum. *Tub* also appeared to hasten the cure.

Table 3 Indications for main homeopathic medicines (number of patients)

Calcarea carbonica (Calc) (4)

- Fair, fat and flabby, profuse sweat with pale face
- Frequent attacks of cold and cough and loose motions since childhood
- Fear that something bad will happen
- Liking for hot milk, prefers salty food
- Did not feel hungry, but when made to eat a little, appetite returned
- Breathlessness on exertion and coughing
- Breathlessness and pain in chest, worse on lying down
- Profuse sweat especially on head while lying
- Body aches, cramps during sleep

Calcarea phosphorica (Calc-p) (2)

- Lean, marked lassitude, associated with lot of weakness
- Vertigo
- Backache
- Pain in abdomen on eating followed by flatulence and sour eructation
- Cold hands and feet worse in winters
- Pain in lumbar back, less in the morning, worse in the evening

Lycopodium clavatum (Lyc) (4)

- Felt like weeping all the time for no particular reason, especially at night and before menses
- Sickly yellow complexion, bluish circle around eyes, vertical furrow on the forehead and graying of hair
- Desire for sweets and hot tea at frequent intervals, better with hot food and warm drinks
- Little food made him full, flatulent after food and in the evenings, acidity after eating fried food
- Generalized increased sweat, offensive
- Itching after sweating
- Painful swelling inguinal region and neck
- Cough with yellow, thick, easy and offensive expectoration
- Evening rise of fever

Phosphorus (Phos) (3)

- Tall, lean with narrow chest
- Desire for company, grief undermining the constitution
- Anxiety and fear that something will happen
- Desire cold and salty things
- Dryness of lips
- Stitching pain in chest after coughing

Pulsatilla (Puls) (4)

- Small built, irritable, shy, obstinate and wept easily and clinging to the mother
- Dry cough with scanty expectoration in the morning, aggravated on lying down, more at night worse attack ended in vomiting
- No thirst, poor eater, pain in epigastric region about an hour after eating, particularly after salads
- Worried about her health
- Fever at 14.00, followed by chill at 16.00 and sweating at night
- Recurrent diarrhoea

Silicea terra (Sil) (3)

- Small built with pale waxy face, dull, easily tired
- Chilly, sensitive to draft of air
- Profuse perspiration at night and on least exertion
- Frequent attacks of cold and cough particularly at the change of season
- Desire for eggs, lime
- History of recurrent tonsillitis

Case 13. 16/10/2003 to 23/2009/2004

9 Years, male, Hindu, Student: His mother brought the child for homeopathic treatment of swellings in the neck of 1 year duration, associated with 3–4 episodes of epistaxis and dry cough ending in vomiting. There was history of recurrent attacks of cough with expectoration at the change of season since 5 years and family history of TB in maternal uncle. Some attacks of cough had previously been treated symptomatically with conventional medicines, no previous ATT.

He was small with a pale, anxious face. Multiple enlarged, bilateral, painless LN like a knotted cord in the neck, one on right side, matted, 2 × 2 cm, tender, adherent to overlying skin. FNAC reported “granulomatous inflammation with necrosis consistent with TB, stain for AFB positive”.

After analysis (Figure 3) *Drosera 30c* × 1 dose every 15 days, from 16/10/2003 to 18/03/2004 was prescribed, with

marked improvement in cough, but no change in LN. *Silicea (Sil)* 6x three times daily was then added. Both continued till 27/2005/2004; at that time there was no cough and the LN had regressed. *Tub 200c* × 1 dose in 15 days added at this time. All the three homeopathic medicines were continued until 23/2009/2004. Patient asymptomatic and the LN became impalpable after 11 months, weight increased by 4 kg.

Observation: This case illustrates the synergistic role of each remedy.

Case 14. 22/09/2004 to 24/02/2005

20 Years, male, Medical student, Hindu: He had suffered from PTB diagnosed about a year before earlier, treated with ATT Cat III. He was then well for 3 months, but then noticed a progressively increasing swelling on right side of neck associated with weakness, feverishness and loss of appetite. FNAC reported “granulomatous lesion

with caseation and necrosis, consistent with TB". His physician advised him to wait and watch the progress of the disease, as he had completed the course of ATT only 3 months previously. He took various homeopathic medicines e.g. *Sil 30c*, *200c*, *Calc-p 30c*, *Bac 200c*, *Tub 200c* and *1M* prescribed by other physicians in single doses at intervals of two to three weeks, without much effect. Other associated symptoms were reflux oesophagitis and offensive sweat. On examination there was pitting of the nails of the right second and third fingers, and one LN in the right anterior cervical triangle, painless, 2 × 2 cm, firm and mobile.

Lycopodium (Lyc) 200c × 1 dose once a week (Figure 4), *Tub 1M* × every 15 days and *Sil 6x* three times daily × 5 days a week was prescribed.

His appetite improved, offensive sweat reduced, the nails became better and lymph node started regressing after a month. Five and a half months later lymph node was not palpable, the nails had become normal and had gained 5 kg.

Observation: There was no improvement when homeopathic medicines were given in single doses at infrequent intervals, but repeated use of three homeopathic medicines simultaneously brought about a sustained improvement.

Case 23. 24/02/2005 to 16/06/2005

25 Years, male, Tailor, Muslim, low socio-economic strata: He had cervical TBLN for 3 years, treated with Cat III ATT for 8 months. LN became static after initial decrease; he complained of pain in the neck, more during winter and on taking cold drinks; frequent attacks of sore throat always started on the right side. His maternal aunt, living with him, suffered from PTB. FNAC on 01/01/2005 (after ATT), "Smear from nodule in the right posterior cervical region reveals caseating tuberculous lymphadenitis, stain for AFB positive". Patient came seeking alternative treatment. On examination multiple LN were felt in the right posterior cervical region, 1–2 × 2 cm, painful, firm, discrete and mobile.

Lyc 30c once a week, *Tub 200c* once a week and *Sil 6x* three times daily was prescribed after repertorisation

(Figure 5), then *Lyc 200c* once a week after 3 months when improvement ceased.

The patient was asymptomatic had gained 4 kg in weight and LN were not palpable after 4 months.

Observation: Eight months of ATT had little effect on the disease, perhaps due to multiple drug resistance while 4 months of homeopathic treatment made patient symptom free, and the LN became impalpable.

Discussion

Case histories of 25 patients spread over a period of 6 years were analyzed to evaluate the effect of homeopathic treatment of TBLN with the possibility of evolving a treatment regime.

Of these, three patients (5, 21, 23) were refractory cases, two (4, 14) had developed cervical LN after recovery from the pulmonary or abdominal TB with ATT and had been advised to wait by their allopathic physician. One patient (2) stopped ATT due to intolerable gastro-intestinal symptoms, one (22) attended the DOT centre for one month, but then returned to her village, stopped ATT and was reluctant to resume. Two patients took homeopathic treatment as an adjunct to ATT (16, 17), it seems homeopathy had played a complementary role in these cases. The remaining 14 patients were newly diagnosed cases, who consulted for prolonged cough, non-specific abdominal pain, lassitude and anorexia, loss of weight, haemoptysis (24) and enlarged LN. They were specifically informed about the conventional treatment but preferred to continue homeopathic treatment due to initial satisfactory response, free investigations and treatment, easy accessibility and friendly doctors.

The diagnosis was established by FNAC except in one case of hilar LN (19). Cervical LN were enlarged in twenty two cases, two had inguinal LN (1, 17) and one (19) had only hilar LN. Associated enlarged hilar LN was noted in eight cases. There were signs of healed pulmonary infiltrations in eight cases and abdominal TB in one case. Mantoux test was positive in four cases (1, 11, 19, 25),

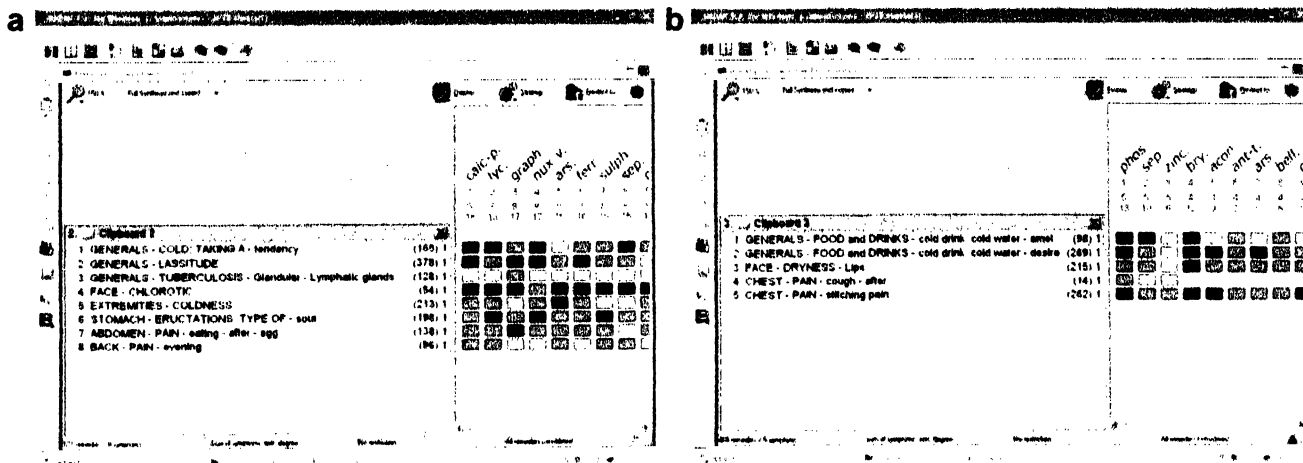


Figure 1 a: Initial repertorisation case 2 (RADAR software). b: Subsequent repertorisation case 2 (RADAR software).

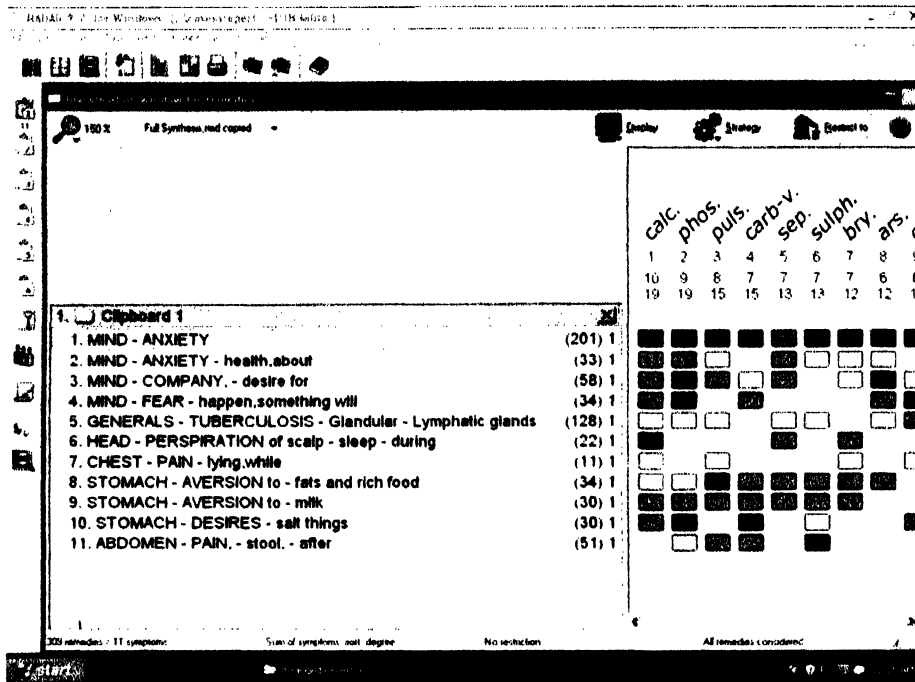


Figure 2 Initial repertorisation case 4 (RADAR software).

negative in one (12) and equivocal in one case (24). The Mantoux status in the remaining cases is not known.

Medicine selection and dosage

The medicines were selected at three levels

- a. constitutional
- b. biotherapy (nosode) specific to the disease
- c. supportive

Constitutional: In each case constitutional medicine was identified by repertorization using RADAR version 9.2.

Fourteen medicines were used. It was found that the correct constitutional medicine helped in improving the patient as a whole and also specifically in TBLN. In one case (4) the initial selection was apparently incorrect case and the patient did not improve. We recommend that a constitutional medicine should be selected and given in each case. Some indications for these are given in Table 3.

Biotherapy (nosode): Burnett used *Bacillinum* in the treatment of TB and TBLN in repeated doses at an interval of 8–10 days.¹³ We used *Tuberculinum bovinum* (*Tub*) in 200c or 1M potencies. Initially it was given

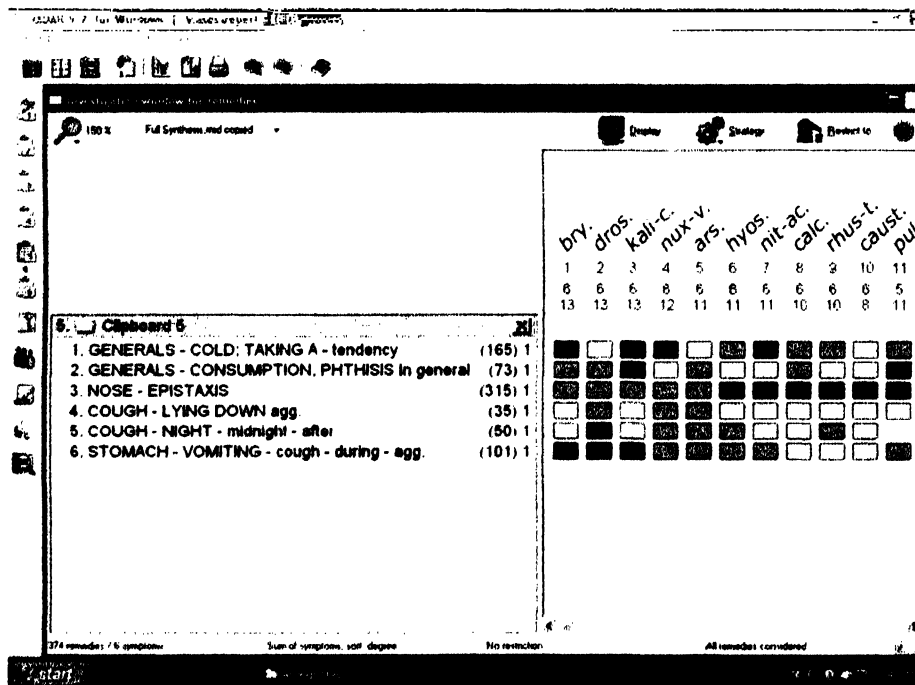


Figure 3 Initial repertorisation case 13 (RADAR software).

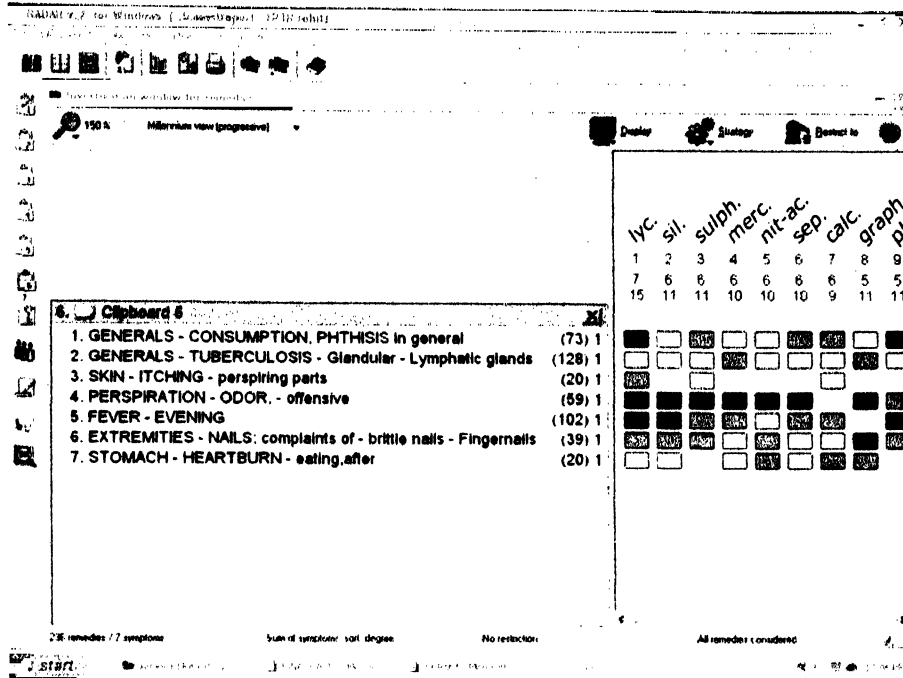


Figure 4 Initial repertorisation case 14 (RADAR software).

as required (1, 4) but later we moved to repetition at 7–14 day intervals. Progress in one case (3) was slow until *Tub* was given.

Supportive: *Sil 6x* was used in 18 cases and was found useful as a supportive medicine. The inspiration for its use came from the various biological experiments²² which have shown that Silicic acid stimulates leukocyte and fibroblast activity. *Sil* was found to be useful even as constitutional medicine in three cases (1,7,18).

Initially constitutional medicines were used in single doses with repetition only when the symptoms warranted

but later we repeated them every week to fortnight. *Calcarea phosphorica 6x* in two cases (2 and 19) and *Calc fluoratum 6x* in one case (6) were used in repeated daily doses *Bryonia 30c*, *Arsenicum iodatum 30c*, *Calcarea iodatum 30c*, *Ferrum phosphoricum 6x* and *Ipecacuhana 30c* were also used in repeated daily doses from one dose a day to three doses as per the requirement. Our experience suggests that the homeopathic medicines should be repeated at regular interval to derive maximum response. The constitutional remedy and *Tub* have been used in medium (30c) to high (200c/1M) potency at an interval of 7–15 days for maximum benefit.

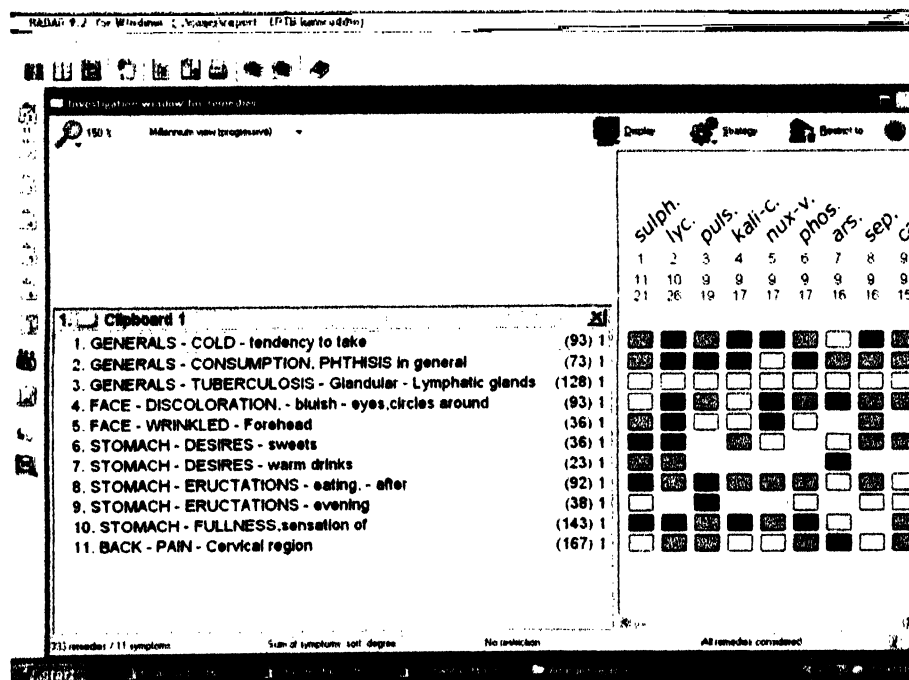


Figure 5 Initial repertorisation case 23 (RADAR software).

With experience our regime evolved. Progress with only constitutional remedy was been slow as, for instance in case 5 treated with *Calcarea carbonica*, or there was improvement in general symptoms without reduction in size of LN as in early stages of treatment of cases 1, 2, 4, 13. Progress was faster where *Tub* was added whenever improvement stopped as in cases 15, 17, 19, 20, 24. Patients treated with all three classes of medicine from the beginning showed the best progress (6, 7, 9, 12, 14, 18, 21, 22, 23, 25). One patient (10) had marked improvement in all symptoms but no change in the size of LN with *Phosphorus*, he returned to his village with *Phos 30c* and *Sil 6x* for a month. When he returned after 15 months, LNs were still enlarged, but they regressed when *Tub* was added and all three medicines were given together. In case 13 *Drosera* was prescribed for five months without any effect on size of LN, regression of LN started only when *Sil 6x* and *Tub 200c* were added. Episodes of acute intercurrent illnesses treated with indicated remedy apart from constitutional expedited the progress in some cases, for instance *Pulsatilla 30c* for fever (6, 8, 16, 19), *Arsenicum album 30c* (7); *Bryonia 30c* for pain in chest (24); *Staphylococcinum 200c* for pyoderma (8); *Antimonium crudum 30c* for vomiting and diarrhoea (7).

It appears that the different elements of the regime target different endogenous factors of disease. The constitutional remedy targets individual response, biotherapy helps in providing immunity against the bacilli and *Sil 6x* helps as a general stimulant of leucocytic and fibroblastic activity.

TB, immune-modulation and homeopathy

The immune system is a complex network of cellular and molecular interactions. Autophagy is a recently recognized innate and adaptive immunity defense against intracellular pathogens. Induction of autophagy by physiological, pharmacological or immunological means can eliminate intracellular *Mycobacterium tuberculosis*²³. It is induced by T helper1 (Th1) cytokine interferon (IFN)-gamma which play an important role in protection against intracellular pathogens and is inhibited by Th2 cytokines IL-4 and IL-13. The cytokine that is produced from NK cells and dendritic cells at an early period of infection strongly induces not only macrophage activation but also development of antigen-specific IFN-gamma-producing CD4 + T-cells.^{24,25}

It seems that the 'qualitative' aspect rather than the quantitative can be important. It has been reported that ultra-diluted antigens can transfer signals to the immune system and modulate its response when the organism is in challenge with the related antigen⁵. The auto-reactivity of T-cells is managed by the immune system, dependent upon the concentration of the antigen they encounter; if they 'see' high concentration of a self-antigen, they are killed, but when exposed to low doses, they undergo a special kind of active inhibition (called 'bystander suppression'). Danninger *et al.* also reported immunomodulatory effects (decrease of circulating immune-complexes) of a biotherapy prepared from *Staphylococcus aureus* in 12CH dilution in human immunodeficiency virus (HIV)-positive

patients²⁶ and there are reports of the use of specific biotherapy (nosodes) in animals.²⁷⁻³⁰

We postulate that with homeopathic intervention specific and non-specific immunological endogenous factors are addressed in the individual patient.

Conclusions

This study suggests that Homeopathic intervention may be effective in the treatment of TBLN. We evolved a multi remedy regime which includes one patient specific constitutional medicine targeting individual response; one disease specific (*Tub*) biotherapy (nosode) and *Sil 6x* as supportive medicine to target immune-modulation at different levels and address endogenous factors.

The efficacy of ATT under RNTCP in the treatment of TBLN is well documented but refractory and drug resistant cases are a growing problem. There is a possibility of using homeopathic regime in such cases as complementary and alternative therapy. It could improve the patient satisfaction and compliance especially in countries where it is popularly used. Further validation in controlled trials with immune-markers is required.

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