

## EXTRA MURAL RESEARCH

### Study on effectiveness of homoeopathic bowel nosodes in the treatment of cervical spondylosis on the basis of stool culture report

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#### Abstract

**A prospective study of the patients suffering from cervical spondylosis treated with bowel nosodes was conducted with the objective to study their efficacy when prescribed on the basis of stool culture report. The stool cultures of 82 enrolled cases were done for isolation of non-lactose fermenting bowel organisms. On the basis of the presence of the predominant bacteria in the stool of patient suffering from cervical spondylosis, the corresponding bowel nosode was administered. Out of 82 patients enrolled in this study, 31 patients were given bowel nosodes only; 69 patients (84.14%) were given bowel nosode alone or along with homoeopathic/biochemic medicines. The results of the study were, therefore, assessed in these 69 patients only. The study concluded that bowel nosodes could possibly be used effectively on the basis of the stool culture in the treatment of patients suffering from cervical spondylosis.**

**Keywords :** homoeopathy; cervical spondylosis; stool culture; bowel nosodes; bacillus no. 7; morgan gaertner; morgan pure; proteus; sycotic co.

#### INTRODUCTION

There is a growing concern about the human body ecosystem-the GI tract. The GI tract harbours a rich flora of more than 500 different bacterial species, some of which have important health related functions. It has been suggested that this flora be regarded as part of the human body. These flora comprise of both beneficial and pathogenic organisms. But these flora are not static. Among these probiotic bacteria are the live microorganisms which belong to the natural flora with low or no pathogenicity. It is increasingly accepted that probiotic bacteria are effective tools for controlling overgrowth of potentially pathogenic microorganisms (PPM)<sup>1</sup>.

These flora of GI tract are influenced by dietary and environmental stress, causing an increase in potentially pathogenic microorganisms versus decrease in probiotic bacteria. Various medical treatments also cause serious derangements in the structure and functions of the probiotic flora. These include antibiotics, cytostatics, and irradiations, as well as failure to provide sufficient enteral nutritions for the flora<sup>1</sup>.

The stress of modern life, reduced physical activity, and consumption of manipulated and processed foods and of chemicals- including pharmaceuticals, constitute the stressors to human body that may predispose to inflammatory, infectious, ulcerative, degenerative and neoplastic diseases<sup>1</sup>.

When normal balance of the colonic flora is upset, there is possibility that the normal colonic organisms may play a part in the disease pathogenesis<sup>2</sup>. Significant differences have been observed in the faecal flora and bacterial enzyme activity between individuals residing in countries with high incidence of colon cancer and individuals in countries with low incidence<sup>3</sup>. Similarly a high frequency of small intestinal bacterial over growth was found in patients with rheumatoid arthritis (RA)<sup>4</sup>.

In 1986, a study had shown the role of bowel flora particularly *Klebsiella* species in Ankylosing Spondylitis. It was presumed that similar mechanism might be involved in the reactive arthropathies which may follow bowel infections, and probably in Reiter's syndrome also<sup>5, 6</sup>.

Bach started investigating about the role of intestinal bacteria in the pathogenesis of chronic diseases. He found that certain intestinal germs which belong to the non-lactose fermenting, gram -ve coli typhoid group have close association with the pathogenesis of chronic diseases. Though they were present in the intestine of

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healthy human beings, yet there were definite increase in the number of these organisms in the diseased persons<sup>7</sup>.

He treated successfully the chronic cases with vaccines prepared from the organisms obtained by stool culture of diseased persons. In the mean time, while going through the Organon of Medicine, he found the striking similarity between his proposed theory and principle of Homoeopathy<sup>8</sup>.

Gradually many physicians started potentising the various non-lactose fermenting bowel bacteria and administering them (bowel nosodes) clinically. Though the journey of these group drugs into homoeopathic armamentarium was not through the traditional route i.e. proving, yet their use travelled from stool culture to clinical based prescriptions. But, unfortunately, with the passage of time, this group of drugs have been gradually sidelined by the profession.

'Cervical spondylosis' is a degenerative disc disease in middle-aged and elderly patients and usually produces intermittent neck pain. Repeated occupational trauma may contribute to the development of this condition. Flexion-extension injuries, blows to the head, or neck injury while lifting heavy objects may precipitate an acute exacerbation. Functional outcome noticeably declines with long-term follow-up, which raises the question of whether, and how much, surgical treatment affects the natural course of the disease<sup>9</sup>.

This work was an attempt to enlarge the field of clinical application of bowel nosodes in cervical spondylosis. It was expected that the bowel nosodes prescribed on the basis of stool culture reports of the patients might reiterate the basic concepts of J. Paterson<sup>10</sup> and the outcome would pave the way for further studies.

### Aim and Objectives

The primary objective of the study was:

*"To determine the efficacy of bowel nosodes in the treatment of Cervical Spondylosis, prescribed on the basis of stool culture report."*

The secondary objectives of the study were:

1. To find out the efficacy of the bowel nosodes in LM (50 Millesimal) potencies.
2. To study the effects of the bowel nosodes, non-bowel homoeopathic/bio-chemic medicines in cases where the stool culture reports do not reveal the presence of non-lactose fermenting organisms.

### Materials & Methods

A total of 82 patients were recruited from the general O.P.Ds of Dr. A.C. Homoeopathic Medical College & Hospital, Bhubaneswar, from March 1999 to March 2002. Subjects were diagnosed on the basis of presenting symptoms, signs and radiological findings.

The stool cultures of enrolled cases were done for isolation of non-lactose fermenting bowel organisms. On the basis of the presence of the bacteria in the stool of the patient suffering from Cervical Spondylosis, the corresponding Bowel Nosode was administered as per table-1.

A standard case recording proforma was prepared for maintaining the clinical profiles of the patients.

The non-bowel homoeopathic/biochemic medicines were prescribed in the following conditions:

- To the patients who did not exhibit the presence of any non-lactose fermenting organism, in their stool culture.
- When the stool culture revealed the presence of bowel organisms for which the corresponding bowel nosodes were not available.
- Where a non-bowel homoeopathic medicine was clearly indicated.
- Where aggravation of symptoms remained for a long time and caused distress to the patients following administration of bowel nosodes.
- In cases where new symptoms cropped up, lasted for a long time troubling the patients.

In such situations, care has been taken to choose medicines from the list of related medicine suggested by J. Paterson and E. Paterson. If no such related medicine was available then medicines were prescribed on the basis of the totality of symptoms outside the list of related drugs.

**Table-1:** Bowel organisms and related bowel nosodes

Bowel organisms	Corresponding bowel nosode (s)
Proteus morganii/ Morganella morganii	Morgan co. Morgan gaertner Morgan pure
Shigella dysenteriae	Dysentery co.
Salmonella enteritidis	Gaertner co.
Proteus vulgaris } Proteus mirabilis }	Proteus
Bacillus asiaticus } Bacillus cloacae } Bacillus freundii }	Bacillus no. 7
Streptococcus faecalis	Sycotic co.
E. coli	B. coli

Out of 82 patients, 31 (84.14%) were given bowel nosodes alone and 17 patients with bowel nosodes and non-bowel homoeopathic medicines and 7 patients with bowel nosodes and bio-chemic medicines and 14 cases with bowel nosodes, non-bowel homoeopathic medicines and biochemic medicines, while 13 patients were prescribed with medicine other than bowel nosode, out of which 5 patients with both non-bowel homoeopathic medicines and biochemic medicines and 8 patients with non-bowel homoeopathic medicines only.

The bowel nosodes were mostly prescribed in 50 millesimal potencies. The non-bowel homoeopathic medicines were administered mostly in centesimal potencies. Repetition of medicines were done at suitable intervals, as per the need of each individual case in pursuance of the guidelines given by Hahnemann in Organon of Medicine; Bach, J. Paterson and E. Paterson in their books on bowel nosodes.

The patients were asked to report, every 15-30 days, on the progress of their ailments and the findings were recorded in the prescribed format.

### Outcome Assessment

The results of the treatment with Bowel Nosodes and other medicines were assessed as follows:

- i. **Marked improvement:** Absence of pain, stiffness, tingling sensation, numbness in upper limbs, headache and vertigo; neck movement markedly improved and localized tenderness was absent after treatment.
- ii. **Moderate improvement:** Absence of stiffness, tingling, numbness, headache, vertigo; moderate improvement in neck movement and significant decrease in localized tenderness and parasthesia, periodic manifestation of neck pain of lesser intensity at longer intervals.
- iii. **Mild improvement:** Slight reduction of tingling, numbness, headache, vertigo, parasthesia and localized tenderness, periodic recurrence of pain, stiffness and restriction of neck movement.
- iv. **No improvement:** Status quo ante.
- v. **Dropout:** The patient who did not turn up after one or two visits.

### Results

The figure shows that most of the patients presented with pain in scapular region(s)/ shoulder(s)/ arm(s) and neck pain (table -2). Regarding the radiological findings 50 patients had positive findings, while 19 cases had normal findings.

**Table-2:** Presenting symptoms of the patients with cervical spondylosis

Symptoms	No. of patients
- Neck pain	61
- Pain in scapular region(s)/ Shoulder (s)/ arm (s)	65
- Stiff neck	07
- Stiffness of shoulder (s)	04
- Tingling/numbness in arm (s)/ Finger(s)	18
- Headache	06
- Vertigo	03

From the stool cultures of the patients enrolled, the bowel organisms isolated were *E.coli* (50 patients), *Streptococcus faecalis* (35 patients), *Enterobacter species* (23 Patients), *Proteus vulgaris* (20 patients), *Proteus morganii* (19 patients), *Citrobacter species* (5 patients),. In some cases more than one bowel organisms have been isolated.

Sixty-nine (69) patients were administered with Bowel Nosodes in 75 different sittings. The bowel nosodes administered were *Morgan pure*, *Morgan gaertner*, *Sycotic co.*, *Proteus* and *Bacillus No. 7*. Out of these cases, 2 patients were administered with both *Proteus* and *Sycotic co.*, one patient was administered *Proteus* and *Morgan pure*, one patient with *Proteus* and *Bacillus No.7* and one was given *Morgan pure*, *Proteus* and *Sycotic co.*

Of the 69 patients to whom bowel nosodes were administered singly or with non-bowel homoeopathic/ biochemic medicines, there was varying degrees of improvement in 58 patients, no improvement in 9 patients and 2 patients dropped out of the study. Of the 42 male patients, 11 showed marked improvement, 13 showed moderate improvement and 15 mild improvement. Three (3) male patients showed no improvement in their complaints. Out of the 27 females enrolled in the study, 3 showed marked improvement, 9 showed moderate improvement, 7 mild improvement and 6 no improvement. Two female patients enrolled dropped out of the study.

The non-bowel medicines which were prescribed during the period, after the administration of each bowel nosode are given in table-3.

The improvement status of patients according to individual bowel nosode is given in table- 4.

A comparative presentation of improvement status of groups of patients according to the medicines prescribed is given in table-5.

**Table-3:** Bowel nosodes and non-bowel medicines prescribed

Name of the bowel nosode	Name of non-bowel medicine(s)
Bacillus no. 7	<ul style="list-style-type: none"> <li>• <i>Homoeopathic medicines</i>- Rhus tox.</li> </ul>
Morgan gaertner	<ul style="list-style-type: none"> <li>• <i>Homoeopathic medicines</i>- Causticum, Hep. sulph., Lycopodium, Merc. sol., Rumex, Spongia</li> </ul>
Morgan pure	<ul style="list-style-type: none"> <li>• <i>Biochemic medicines</i> - Ferrum phos., Mag. phos.</li> <li>• <i>Homomoeopathic medicines</i>- Cimicifuga., Phytolacca, Rhus tox., Sepia</li> </ul>
Proteus	<ul style="list-style-type: none"> <li>• <i>Biochemic medicines</i> - Calc. fluor., Calc. phos., Ferrum phos., Kali phos., Mag. phos., Nat. sulph.</li> <li>• <i>Homoeopathic medicines</i>- Chelidonium, Cimicifuga, Cobaltum, Gnaphalium, Kali bich., Medorrhinum, Rhus tox., Sepia</li> </ul>
Sycotic co.	<ul style="list-style-type: none"> <li>• <i>Biochemic medicines</i> - Calc. fluor., Calc. phos., Ferrum phos., Kali phos., Mag. phos., Nat. phos.</li> <li>• <i>Homoeopathic medicines</i>- Bryonia, Calc. carb., Causticum, Kalmia, Lachnanthes, Lycopodium, Nat. mur., Rhus tox., Syphilinum, Thuja occ.</li> </ul>

**Table-4:** Assessment of results of individual bowel nosodes

Name of the bowel nosode	No. of patients administered	Improvement							
		Marked	%	Moderate	%	Mild	%	No	%
Bacillus no. 7	03	01	33.33	00	00	00	00	02	66.67
Morgan gaertner	05	01	20.00	03	60	01	20	00	00.00
Morgan pure	06	00	00.00	03	50	01	16.66	02	33.34
Proteus	22	02	09.09	05	22.72	09	40.90	06	27.29
Sycotic co.	37	10	27.02	12	32.43	11	29.73	04	10.81

**Table-5:** Assessment of results of different groups

Groups	Improvement			
	Marked	Moderate	Mild	No
- Bowel nosodes only	10	05	11	03
- Bowel nosodes with non-bowel homoeopathic medicines	02	11	01	03
- Bowel nosodes and biochemic medicines	01	02	03	01
- Bowel nosodes, non-bowel homoeopathic and bio-chemic medicines	01	05	06	02

The response of various bowel nosodes in relieving the particular symptoms of patients suffering from cervical spondylosis is given below-

<b>I. Bacillus no. 7</b>		
<i>Particular symptoms</i>	<i>No of cases prescribed</i>	<i>No of cases improved</i>
○ Pain in neck	02	01
○ Stiffness of neck	01	00
○ Tingling sensation and numbness in arms/ fingers	01	00
<b>II. Morgan gaertner</b>		
<i>Particular symptoms</i>	<i>No of cases prescribed</i>	<i>No of cases improved</i>
○ Pain in neck	05	04
○ Pain in scapular region/ shoulders/ arms	04	02
○ Tingling sensation and numbness in arms/ fingers	03	01
<b>III. Morgan pure</b>		
<i>Particular symptoms</i>	<i>No of cases prescribed</i>	<i>No of cases improved</i>
○ Pain in neck	05	02
○ Pain in scapular region/ shoulders/ arms	06	02
○ Stiffness of neck	02	00
○ Tingling sensation and numbness in arms/ fingers	01	00
<b>IV. Proteus</b>		
<i>Particular symptoms</i>	<i>No of cases prescribed</i>	<i>No of cases improved</i>
○ Neck pain	20	12
○ Pain in scapular region/ shoulders/ arms	15	07
○ Tingling sensation and numbness in arms/ fingers	04	03
○ Weakness of limbs	01	00
○ Vertigo	01	00
<b>V. Sycotic co.</b>		
<i>Particular symptoms</i>	<i>No of cases prescribed</i>	<i>No of cases improved</i>
○ Pain in nape of neck	30	21
○ Pain in scapular region/ shoulders/ arms	40	28
○ Stiffness of neck	04	03
○ Stiffness of shoulder	04	03
○ Tingling sensation and numbness in arms/ fingers	10	07
○ Weakness of limbs	03	00
○ Vertigo	03	01

## Discussion

This study has shown that bowel nosodes play an important role in the management of cervical spondylosis when prescribed on the basis of the stool culture and otherwise confirms the findings of the pioneers in the field like Bach, J.Paterson.

Out of the 82 patients of cervical spondylosis treated under this clinical research trial, maximum cases (26) belong to the age group of 41-50 years and 21 cases belong to the age group 31-40 years. There were 49 males and 33 females. Fiftythree (53) patients (64.63%) were accustomed to manual work against 29 patients (35.37%) doing sedentary work. Twelve patients

suffered for less than 1 month, where as 70 patients had complaints ranging from 1 month to 3 years and more. Fortynine cases (59.76%) were diagnosed from signs and symptoms as well as radiological findings, whereas 33(40.24%) were diagnosed from signs and symptoms alone. Repeat radiological assessments could not be done and the response to treatment was based on subjective assessment of patients through symptoms and signs.

The bowel organisms isolated in the stool culture of patients were *E.coli* (50 cases), *Streptococcus faecalis* (35), *Enterobacter species* (23), *Proteus vulgaris* (20), *Proteus morgani* (19) and *Citrobacter species* (5). Bowel nosodes were prescribed according to the bowel

organisms isolated from the stool of each patients (Table-1). In those cases, where more than one bowel organisms were isolated, the symptoms of the patients were matched with those of the bowel nosodes and the most appropriate bowel nosode was prescribed.

The bowel nosodes used in this study were *Sycotic co.* (39 patients), *Proteus* (22 patients), *Morgan pure* (6 patients), *Morgan gaertner* (5 patients) and *Bacillus no.* 7 (3 patients). More frequent use of *Sycotic co.* may vindicate the predominance of *Sycotic* miasm in cervical spondylosis<sup>12</sup>. But effect of *B. coli*, the corresponding bowel nosode for *E. coli* could not be assessed due to non-availability of the medicine in L.M. potency during the study period.

From the view of bowel nosode used in this study, *Sycotic co.* was more frequently administered bowel nosode. Out of the 37 patients administered with *Sycotic co.*, 10 cases showed marked improvement, 12 moderate improvement, 11 mild improvement and 4 cases no improvement.

Considering the particular complaints of the patients cured/relieved by a specific bowel nosode as well as the physical and mental characteristics of the patients in whom such bowel nosodes acted more favourably, the following comprehensive profile of each drug is delineated:

#### **Morgan gaertner**

##### *Particulars*

- Pain in nape of neck
- Pain/soreness in scapular region, mostly affecting right side
- < at night

##### *Physical generals*

- Hot patient
- Desires- sweet, warm food
- Stool- constipated

##### *Mental generals*

- Irritable
- Short tempered

#### **Morgan pure**

##### *Particulars*

- Pain in nape of neck
- Pain/soreness in scapular region/ shoulder region
- < at night, during first motion
- > by continued motion

##### *Physical generals*

- Hot patient, but easily catches cold
- Desires- sweet, oily food
- Appetite- decreased
- Stool- constipated
- Sweat- profuse

##### *Mental generals*

- Irritable
- Short tempered

#### **Proteus**

##### *Particulars*

- Pain in nape of neck and pain/soreness in scapular region
- < at night, from cold exposure

##### *Physical generals*

- Hot patient
- Desires- sweet, salt, lukewarm foods
- Thirst- increased
- Stool- mostly constipated, not clear
- Sweat- profuse

##### *Mental generals*

- Irritable
- Short tempered
- Consolation <
- Obstinate

#### **Sycotic co.**

##### *Particulars*

- Pain in the nape of neck
- Pain/ soreness in shoulder/ scapular region, mostly affecting left side.
- < in cold weather (Winter/ Rainy season), at night, on beginning to move.
- > by hot application

##### *Physical generals*

- Chilly patient
- Desires- sweet
- Intolerance- egg, fatty foods
- Stool- mostly constipated, scanty stool.
- Sleep- disturbed due to pain
- Sweat- profuse

##### *Mental generals*

- Irritable
- Short tempered
- Consolation >

The non-bowel *homoeopathic medicines* prescribed were Bryonia, Calc. carb., Causticum, Chelidonium, Cimicifuga, Cobaltum, Gnaph., Hepar sulph., Kali bich., Kalmia, Lachnanthes, Lycopodium, Medorrhinum, Merc. sol., Natrum mur., Phytolacca, Rhus tox., Rumex, Sepia, Spongia, Syphilinum, Thuja. The *biochemic medicines* used in the study were Calc. fluor., Calcarea phos., Ferrum phos., Kali phos., Mag. phos., Natrum phos., and Natrum sulph. On comparing these drugs with the list of the related drugs<sup>13</sup> suggested by J.Paterson, it is evident that majority of these drugs are not from the list recommended by him. Further study can be taken up to verify this so that these additional medicines may be incorporated in the related drug list.

As we know cervical spondylosis is a degenerative disease of the intervertebral discs, LM potencies of

bowel nosodes were used in most of the cases to overcome the limitation of repetition of bowel nosodes in centesimal potencies, and to obtained quick response in the patients<sup>14</sup>.

In the patients suffering from cervical spondylosis, though regeneration of the degenerated vertebrae or intervertebral discs with medicines may not be expected, yet the sole purpose of the treatment was to relieve the symptoms and avert the possible complications. The mode of selection of the bowel nosodes is different from the conventional method of selection of homoeopathic medicines (on the basis of the *law of similia*). Rather the selection of the medicine in this clinical research study was based on the presence of non-lactose fermenting organism in the stool culture of the individual patient concerned. This novel method of selection of medicine posed a number of limitations particularly the non-availability of pharmaceutical preparations of the corresponding bowel nosodes and their literature. Notwithstanding these difficulties, the results of the study are encouraging as evident from the general assessment of results.

The positive results of the study prompt the need for conducting further clinical trials on the clinical efficacy of bowel nosodes on the basis of symptoms similarity. The symptoms relieved by the bowel nosodes can be added in the *Materia Medica* as clinical symptoms of the respective bowel nosodes. Further, the post-treatment radiological assessment of the patients can be conducted to bring objective evaluation in the study. Different potencies on Decimal, Centesimal and LM scale of the bowel nosodes can be clinically tested to identify the most useful scale.

## Conclusion

Bowel nosodes when prescribed on the basis of positive stool culture could reduce the symptoms of cervical spondylosis, particularly neck pain, stiffness, tingling, headache, vertigo, numbness etc. and improve neck mobility. By doing the stool culture of the individual patients suffering from cervical spondylosis, the selection of the bowel nosode corresponding to the presence of a non-lactose fermenting organism in the stool becomes easier and more objective. Among the bowel nosodes, *Sycotic co.* has yielded most favorable results. For further confirmation of the above findings, a large sample study with more quantifiable outcome parameters is required.

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