

Fibre glass Pneumoconiosis and its Management with Homoeopathic Approach- A Case Report

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ABSTRACT:

Pneumoconiosis is the spectrum of disorder associated with lungs due to exposure to irritating substances in workplace leading to occupational hazards. It is an irreversible disease occurring due to long term exposure to mineral dust and leads to fibrotic changes in lungs. A male patient of 45 years came to OPD with complaints of breathing distress with stitching type of chest pain which was aggravated on deep inspiration. He would easily get tired from least exertion. The chest pain started for 1.5 years. Along with it he also had dry tickling cough and flatulence with tenderness in right hypochondrium occasionally. He had been working in fibre-glass industry for more than 16 years. The patient complained of breathing difficulty with chest pain of stitching character which aggravated on deep inspiration. The patient had a history of working in fibre-glass industry for more than 16 years and was diagnosed as fibre glass pneumoconiosis pulmonary with ground glass opacity in chest X-ray. In this case report, *Bryonia alba* in a series of LM potencies was prescribed considering the repertorial totality and analysis of causative modalities. The patient was having alleviation in the respiratory symptoms and pathologically Chest X-ray revealed no abnormality after a span of 12 months. Many chronic cases with irreversible pathological changes have been successfully treated with individualized homoeopathic medicines. Though such improvements are rarely documented in homoeopathic literature, a well-designed clinical trial to assess the effectiveness of homoeopathic medicines in spectrum of pneumoconiosis could establish its worth in such incurable diseases. This documentation will be a decent addition in medical literature showing the efficacy of homoeopathy in such cases.

KEYWORDS: Bryonia, Fibre glass, Homoeopathy, Pneumoconiosis.

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INTRODUCTION:

Pneumoconiosis is a group of heterogeneous occupational interstitial lung diseases caused by the inhalation of mineral dust in the lungs, which leads to lung dysfunction. [1] The diagnosis is made in the background of long-term exposure to one of these inhalants at high doses, in addition to radiological evidence of pulmonary fibrosis. [2] Workers exposed to fibreglass have also been found to be suffering from pulmonary symptoms similar to asbestosis and like other man-made minerals. [3] Patients may complain of shortness of breath, decreased exercise tolerance, gradual onset of a non-productive cough, or might be asymptomatic with only an abnormal chest X-ray. In this case, ground-glass opacity (GGO) was the radiological diagnosis which indicates a hazy area of increased lung opacity through in which vessels and bronchial structures may still be visible. It is less opaque than consolidation, in which such structures are obscured.

CASE PRESENTATION:

A male patient of 45 years came to OPD on 10.06.2021 with complaints of breathing distress with stitching type of chest pain which was aggravated on deep inspiration. He would easily get tired from least exertion. The chest pain started for 1.5years. Along with it he also had dry tickling cough and flatulence with tenderness in right hypochondrium occasionally. He had been working in fibre-glass industry for more than 16years (**Figure 1**). He was treated allopathically and was advised Chest X Ray, which suggested evidence of occupation-based pneumoconiosis with hazy peripheral ground glass opacity bilaterally (**Figure 2**). He developed chronic cough following which

he was advised to leave this job and he then joined a private firm.

Personal and family history: Mother suffering from rheumatic disorders and father died of acute myocardial infarction and was Diabetic for more than 15 years.

Mental generals: Patient was very calm and quiet and nothing significant could be elicited from the mental generals.

Physical generals: His built was moderate. He had excessive thirst for cold water with intolerance to hunger which caused empty eructation. He had desire for onions and intolerance to milk and aversion to meat. He had excessive perspiration on going to sun heat and is chilly and intolerant to cold air. He also had tendency to catch cold easily.

Analysis and Evaluation of the case:

On detailed case taking and analysis of the symptoms the individualizing characteristic symptoms were taken under consideration and repertorization was done. The following characteristic symptoms were taken:

- Breathing distress with chest pain having aggravation during deep inspiration
- Chest pain aggravation during deep inspiration
- Dry cough with ticking sensation in throat
- Pain in right hypochondrium (occasionally)
- Intolerance to milk
- Cannot stay in empty stomach, it causes eructation
- Tendency to take cold

Repertorization:

Repertorial analysis was done as per Kent's method using HOMPETH software. [4] (**Figure 3**). The repertorial results were analysed giving more importance to the presenting symptoms and the modalities alongwith physical general symptoms and

selection of medicine was preceded by consultation with materia medica. [5]

THERAPEUTIC INTERVENTION WITH FOLLOW UP:

Considering the repertorial totality and analysis of causative modalities, *Bryonia alba* 0/1, 16doses marked in 100ml of aqua dist, OD x 16days followed by *Bryonia alba* 0/2, 16 doses marked in 100ml aqua dist, OD x

16days from consecutive next day was prescribed on 10.06.2021 as first prescription from the dispensing section of the institute. The medicine is procured from a GMP certified company i.e SBL. Medicine was to be taken in empty stomach at early morning. LM potency was selected to be prescribed keeping in mind the pathological changes observed in Chest X Ray. The consecutive follow up are being detailed in Table 1.

Table 1: Follow up with status of patient and consecutive medicines:

Follow-ups with dates	Status of the patient	Medicine prescribed
1 st FU (29.07.21)	Chest pain still occurring, breathing distress and cough is slightly less (ORIDL = +1)	<i>Bryonia alba</i> 0/3, followed by 0/4 OD x 16 days (2 phials each)
2 nd FU (05.11.21)	Chest pain now much less, breathing distress is also less, but cough no such improvement (ORIDL = +2)	<i>Bryonia alba</i> 0/5, followed by 0/6 OD x 16 days (2 phials each)
3 rd FU (04.01.22)	Chest pain almost disappeared, breathing distress only during physical exertion and cough is also much improved (ORIDL = +2)	<i>Bryonia alba</i> 0/7, followed by 0/8 OD x 16 days (2 phials each)
4 th FU (29.04.22)	Chest pain, breathing distress and cough almost annihilated (ORIDL = +3)/ CXR was advised	<i>Bryonia alba</i> 0/9, followed by 0/10 OD x 16 days (2 phials each)
5 th FU (09.06.22)	Chest pain, breathing distress and cough almost gone (ORIDL = +4)/ CXR was showed no abnormality	<i>Placebo</i>

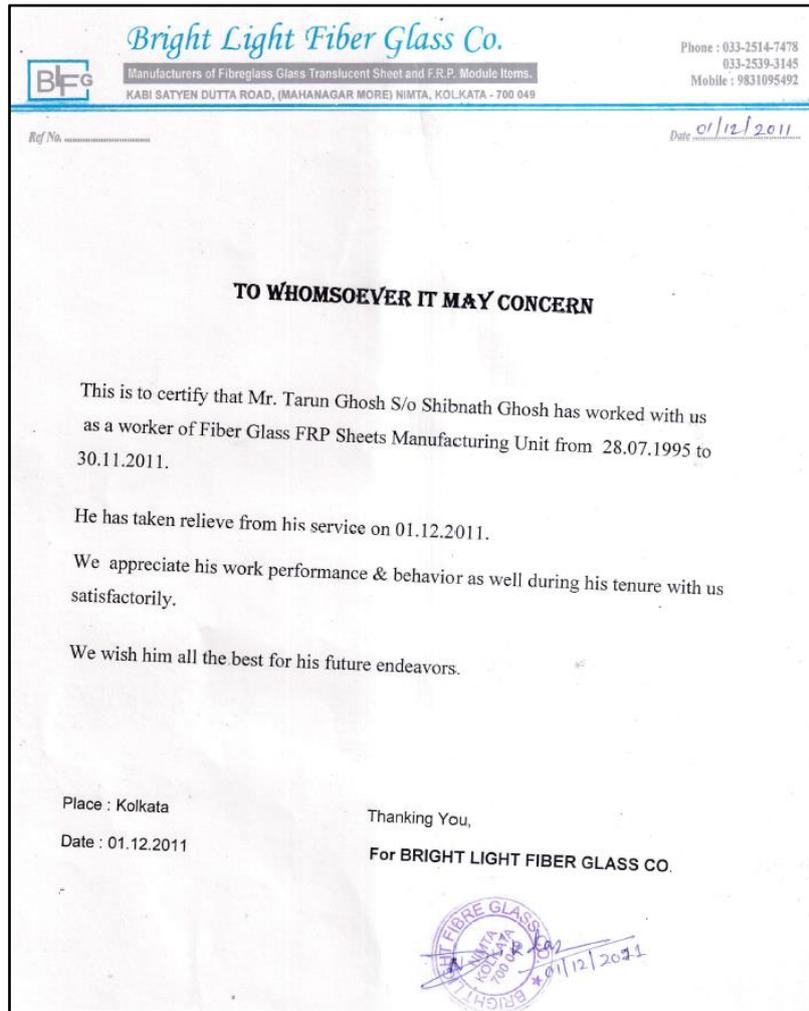


Figure 1: Certificate related to work experience in Fibre Glass Manufacturing Unit

Patient Name :	TARUN GHOSH	Patient ID :	S464
Modality :	DX	Sex :	M
Age :	43 Y	Study :	CHEST PA
Reff. Dr. :	S.R.PAUL	Study Date :	29-07-2020

RADIOGRAPH CHEST (PA VIEW)

- Soft tissues and bony cage of the thorax appear normal.
- Trachea is central with normal para-tracheal shadows.
- Mediastinum is central in position and width.
- Cardiac silhouette appears normal in shape, size and position.
- Lung fields show hazy peripheral ground glass opacity bilaterally
- Both Hila are normal in position and density.
- Domes of Diaphragm appear normal in position and contour bilaterally.
- Both CP Angles appear clear.

IMPRESSION

- Hazy peripheral ground glass opacity bilaterally (Follow up CXR suggested)

Figure 2: Chest X-ray before intervention

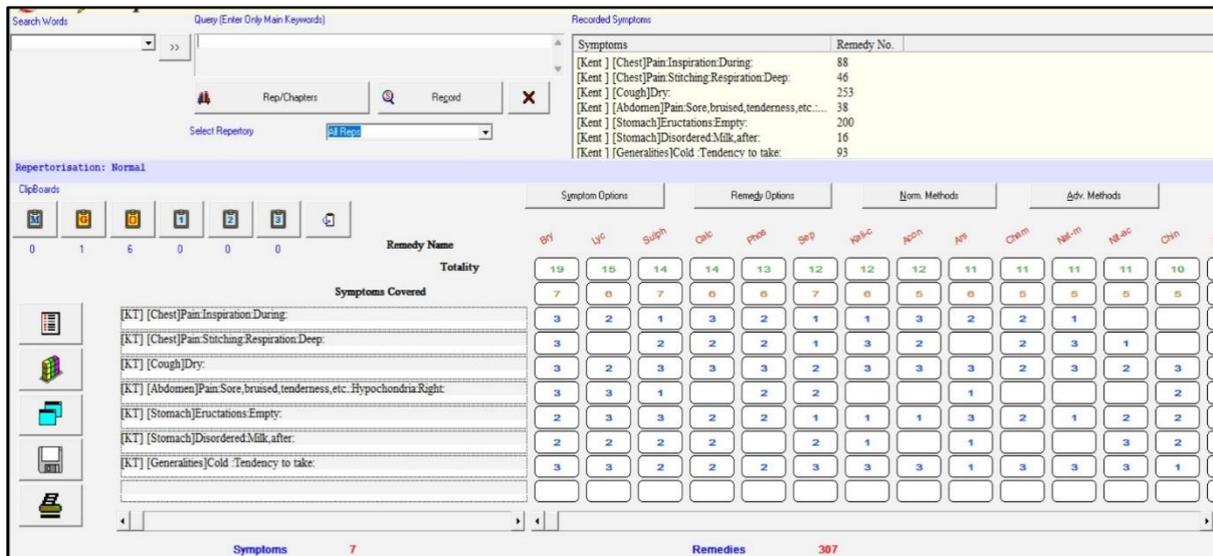


Figure 3: Repertorization chart

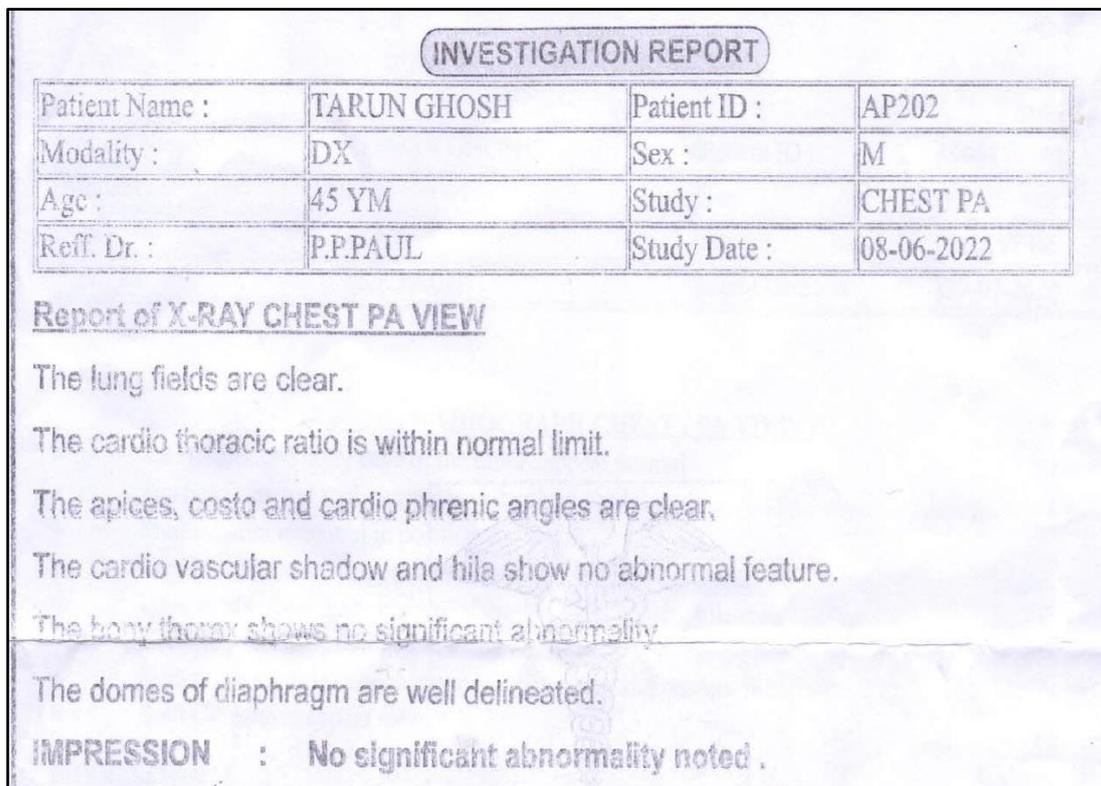


Figure 4: Chest X-ray after intervention

RESULTS:

With gradual medication and life style modification (ie. To avoid cold food and drinks, avoid irritants in food stuffs provoking cough, wearing mask whenever travelling outside) patient showed signs of gradual improvement in his complaints of chest pain and breathing distress. ORIDL

score were evaluated which also showed higher probability of symptomatic relief. With repeat chest X-Ray suggested after a span of 12 months of treatment revealed complete dissolution of pathological changes in the lungs (Figure 4). It can therefore be concluded that based on the modifying factors and symptom similarity an

irreversible disease can also be treated homoeopathically.

DISCUSSION:

Occupational hazards in the form of pneumoconiosis have great impact on a person which not only compromises their state of health but also their psychological state.^[6] Though the prevalence of other types of pneumoconiosis like silicosis, asbestosis, Byssinosis has decreased with awareness programmes, still the mortality and morbidity related to these are posing a global burden.^[7] Amongst these, it has been found that 13% of pulmonary opacities or pleural abnormalities were due to fibreglass.^[8] Studies have shown that fibreglass have the capacity to alter cellular and enzymatic component of lung and causes acute alveolitis.^[9] As there is no cure for pneumoconiosis, and the prognosis is poor in the fibrotic phase of disorders, the treatment modality is either community-based or home-based pulmonary rehabilitation to treat symptoms and enhanced exercise tolerance.^[10]

In this case, a male patient with history of working in fibre glass factory for more than 16 years complained of breathing distress with chest pain even after leaving the job nine years ago and was diagnosed with fibre glass pneumoconiosis showing pulmonary GGO on chest X-ray. He had been prescribed *Bryonia alba* in LM potencies, based on the symptoms presented, which not only helped to alleviate his complaints but also reverse the pathological changes in lungs.

Homoeopathic treatment provides holistic approach in treatment of individuals which takes into consideration the presenting symptoms of a person along with its modalities, desire and aversion and erect a totality which helps in selection of the similimum. As the treatment protocol is

symptomatologic, here laboratory diagnosis plays minimum role in selection of medicine, rather homoeopathic medicines have been found to effectively reduce the frequency of respiratory tract infections when the totality of symptoms are being considered. In this case also there was marked improvement in overall wellbeing of the patient with improvement in pathological manifestations.

CONCLUSION:

Many chronic cases with irreversible pathological changes have been successfully treated with individualized homoeopathic medicines. Though such improvements are rarely documented in homoeopathic literature, a well-designed clinical trial to assess the effectiveness of homoeopathic medicines in spectrum of pneumoconiosis could establish its worth in such incurable diseases.

Limitation of study:

The study should be done in more cases for its scientific validation.

Patients consent:

The consent of the patient has been taken for treatment and publication without disclosing the identity of patient.

Conflict of interest: Author declares that there is no conflict of interest.

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REFERENCES:

1. Infante M, Lutman RF, Imparato S, Di Rocco M, Ceresoli GL, Torri V, Morengi E, Minuti F, Cavuto S, Bottoni E, Inzirillo F. Differential diagnosis and management of focal ground-glass opacities. *European Respiratory Journal*. 2009;33(4):821-7.
2. Farzaneh MR, Jamshidiha F, Kowsarian S. Inhalational lung disease. *Int J Occup Environ Med*. 2010;1(1):11-20.
3. Cioffi U, Raveglia F, De Simone M, Baisi A. Ground-glass opacities: a curable disease but a big challenge for surgeons. *The Journal of Thoracic and Cardiovascular Surgery*. 2017; 154(1):375-6.
4. Shah J. Homopath Classic-Homeopathic Software. Version 8.0 Premium. Mumbai; 2005
5. Murphy R. Lotus Materia Medica. 2nd revised ed., Reprint edition 2007. New Delhi: B. Jain Publishers (P) Ltd.; 2010. p. 294-299.
6. El-Sherief AH, Gilman MD, Healey TT, Tambouret RH, Shepard JA, Abbott GF, Wu CC. Clear vision through the haze: a practical approach to ground-glass opacity. *Current Problems in Diagnostic Radiology*. 2014;43(3):140-58.
7. Cozzi D, Cavigli E, Moroni C, Smorchkova O, Zantonelli G, Pradella S, Miele V. Ground-glass opacity (GGO): a review of the differential diagnosis in the era of COVID-19. *Japanese journal of radiology*. 2021;39(8):721-32.
8. Abbate C, Giorgianni C, Brecciaroli R, et al. Changes induced by exposure of the human lung to glass fiber-reinforced plastic. *Environ Health Perspect*. 2006;114(11):1725-1729.
9. Kilburn KH, Powers D, Warshaw RH. Pulmonary effects of exposure to fine fibreglass: irregular opacities and small airways obstruction. *Br J Ind Med*. 1992;49(10):714-720.
10. Qi XM, Luo Y, Song MY, et al. Pneumoconiosis: current status and future prospects. *Chin Med J (Engl)*. 2021;134(8):898-907.