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HEALING POST- TRAUMATIC STRESS DISORDER BY HOMOEOPATHY: A CASE REPORT

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ABSTRACT: Many cases of Post-Traumatic Stress Disorder (PTSD) cases are present in our country but they are often misdiagnosed under other psychiatric diagnostic terms like depression, anxiety than actual PTSD, unless the patient is carefully interrogated. Particularly, during and after COVID- 19, there is a significant increase in number of cases of PTSD. Also, the majority of patients suffering from PTSD are totally unaware of their condition and thus don't seek help. **Case Summary:** The present case was of a 46 years old male who was suffering from sleeplessness along with allergic rhinitis since 4 years and on proper case- taking he appeared to be a classic case of PTSD. The patient retrieved his self-confidence and restore his health by receiving homoeopathic psycho-somatic disease treatment approach (HPDTA) along with supportive psychotherapy. The case was diagnosed with the help of the Diagnostic and Statistical Manual of Mental Disorders, 5th edition and the patient's mental health was assessed by using PTSD Checklist for DSM-5 (PCL-5). Aurum metallicum was prescribed based on the totality of symptoms and reportorial analysis.

INTRODUCTION: According to American psychiatric association, post- traumatic stress disorder (PTSD) is a psychiatric disorder that may occur in people who have experienced or witnessed a traumatic event, series of events or set of adverse circumstances. An individual may experience this as emotionally or physically harmful or life-threatening and may affect mental, physical, social, and/or spiritual well-being. Examples include natural disasters, serious accidents, terrorist acts, war/combat, rape/sexual assault, historical trauma, intimate partner violence and bullying. [1]

India had the highest prevalence of PTSD as the Indian police and special forces strictly enforced the implementation of the Indian Epidemic Act during Covid-19. The new incidence of PTSD- 11.4 %. Indian respondents reporting the highest prevalence of PTSD (40.8%). [2] The lifetime prevalence of PTSD is estimated at 8.3%. [3]

ETIOLOGY AND PATHOPHYSIOLOGY: There is a hypothesis that in PTSD there are excessive release of norepinephrine from the locus coeruleus in response to stress and increased noradrenergic activity at projection sites in the hippocampus and amygdala. These changes theoretically facilitate the encoding of fear-based memories. [4] Abnormalities of the hypothalamo- pituitary- adrenal axis have been reported, these include hypocortisolemia, and enhanced adrenocorticoid sensitivity to the effects of dexamethasone suppression, which is proportional to the clinical severity of PTSD. This proves that the sensitivity of central glucocorticoid receptors is highly increased in PTSD which distinguishes PTSD from other psychiatric disorders. [5]

CLINICAL FEATURES: There is a triad of symptoms that relate to hyper-arousal, intrusions (distressing flashbacks, nightmares) and avoidance (benumbed feelings and emotional detachment, avoiding referenced to the event). Sleep and appetite are disturbed. The individual resorts to maladaptive coping methods like use of alcohol, aggressive outbursts and even deliberate self-harm. [6]

Other symptoms-

- Guilt feelings about having survived
- Depression
- Anxiety
- Panic attacks
- Shame
- Rage

There may be prolonged episodes of intense affect, increased irritability and explosive, hostile behavior and impulsive behavior. [7]

PATIENT INFORMATION:

First visit: 09/01/2024

A male 48-years-old visited along with his wife, having the presenting complaint of sleeplessness and frequent coryza since 4 years.

CHIEF COMPLAINT:

NO.	Location, Onset, Progress and Duration	Sensation, Character & Pathology	Modalities & Aliments From	Concomitants
1.	C/O sleeplessness since 3.5 to 4 years	Sleeplessness , wakes up suddenly and unable to sleep peacefully	< at night, over thinking	

Table 1. Chief complaint of patient

ASSOCIATED COMPLAINTS:

NO.	Location & Extension, Onset, Progress & Duration	Sensation, Character & Pathology	Modalities & Aliments From	Concomitants
1.	Nose Since 3 years	Frequent sneezing: 10-15 attacks of sneezing at a time. Watery discharge from nose	< morning+++, eating, ice cream, getting wet in rain, cold air+++ > warm water++, covering	Headache – frontal region, throbbing type, < morning+++

Table 2. Associated Complaints of the patient

Past history:

Typhoid – at the age of 27

Right sided renal stone – 2 years back

Family History:

His father was hypertensive and mother had osteoarthritis.

Medical History: The patient had taken anti- depressants and sleeping pills for his presenting complaint under the doctor's guidance. The patient had no such relief from those medications. The patient had hypertension since 4- 4.5 years. He used to take anti- hypertensive drugs. Still, the blood pressure of the patient is 140/90

mm Hg. In general, the patient used to feel better during the course of treatment but then his condition used to aggravate after stopping the medications.

Physical generals:

Appetite: Good, he used to take proper full meal (2 chapatis, sabzi, daal, rice) twice a day.

Thirst: Scanty, desires to drink normal water in small quantity in large intervals (in 4-5 hours)

Desires: spicy food^{+++}

Aversion: sweet things

Perspiration: Profuse+++, especially over face and scalp; non- offensive; non- staining

Stool: Regular and satisfactory

Urine: yellow, offensive, 4-5 times in a day and 2 times in night.

Sleep: Sleeplessness, wakes up suddenly due to constant thoughts of past traumatic incidence and unable to sleep peacefully at night, since 3.5 to 4 years

Thermal: Chilly pt.

He used to bath with warm water even during summers.

Personal History: He was into diamond business. He was married since 25 years. He had two children. His wife was a housewife. He didn't had much friends. He used to live in a joint family very happily. He was very close to his brother. His sleep was very much disturbed. He used to be awake for whole night.

Information from attendant: Patient's wife mentioned about his irritability in trifle issues. She said before marriage, patient was extrovert, expressive and jovial but afterwards he became reserved, sad with an anxious behavior most of the time.

Mental history:

The patient was mentally exhausted. He lost his younger brother 4 years back and even faced massive loss in business. He got very much depressed. A/F- past traumatic incidence. Dwells on suicidal thoughts every time. History of taking anti- depressants. He was very much concerned about what others will think when anyone came to know about his condition. Others opinion matters him the most. He cannot concentrate on what others are saying to him due to overthinking. He used to get irritated at little things. Highly active person, must be busy all the time. Wants perfection in everything. Very much restlessness. Calculative. Intelligent. Introvert person. Family oriented. Very responsible. Very self-dignified person. Consolation makes him feel like loser or inferior. Thinks every time about money and business problems, even during sleep. Fears what will happen forward regarding business.

On Examination:

Appearance: Healthy built, wheatish complexion, brown eyes

Height: 5'7"

Weight: 68 kg

B.P.- 140/90 mmHg

Pulse- 83/ min

Tongue- slightly white coated in centre

No signs of pallor, cynosis, or icterus found.

No palpable lymphadenopathy

On Local Examination:

Nose: Congestion present+

Thickened nasal turbinates

Diagnosis: PTSD (Post traumatic stress disorder)

ICD 11 CODE: 6B40

Predominant Miasm: Syphilis

Analysis & Evaluation of Symptoms:

- Depressed, dwells on suicidal thoughts.
- Thinks every time about money and business problems, even during sleep. Fears what will happen forward regarding business. Gets irritated at little things.
- Wants perfection in everything. Calculative. Intelligent.
- Introvert person. Family oriented. Very responsible.
- Very self dignified person.
- Consolation makes him feel like loser or inferior.
- Highly active person, must be busy all the time. Very much restlessness.
- Sleeplessness, wakes up suddenly and unable to sleep peacefully < at night, over thinking
- Thermal: Chilly pt.
- Desires: spicy food^{+++}
- Aversion: sweet things
- Nose- Frequent sneezing, Watery discharge from nose
- < morning+++, eating, ice cream, getting wet in rain, cold air+++
    - warm water++, covering
- Headache – frontal region, throbbing type, < morning+++
- B.P.- 140/90 mmHg

Repertorial Totality:

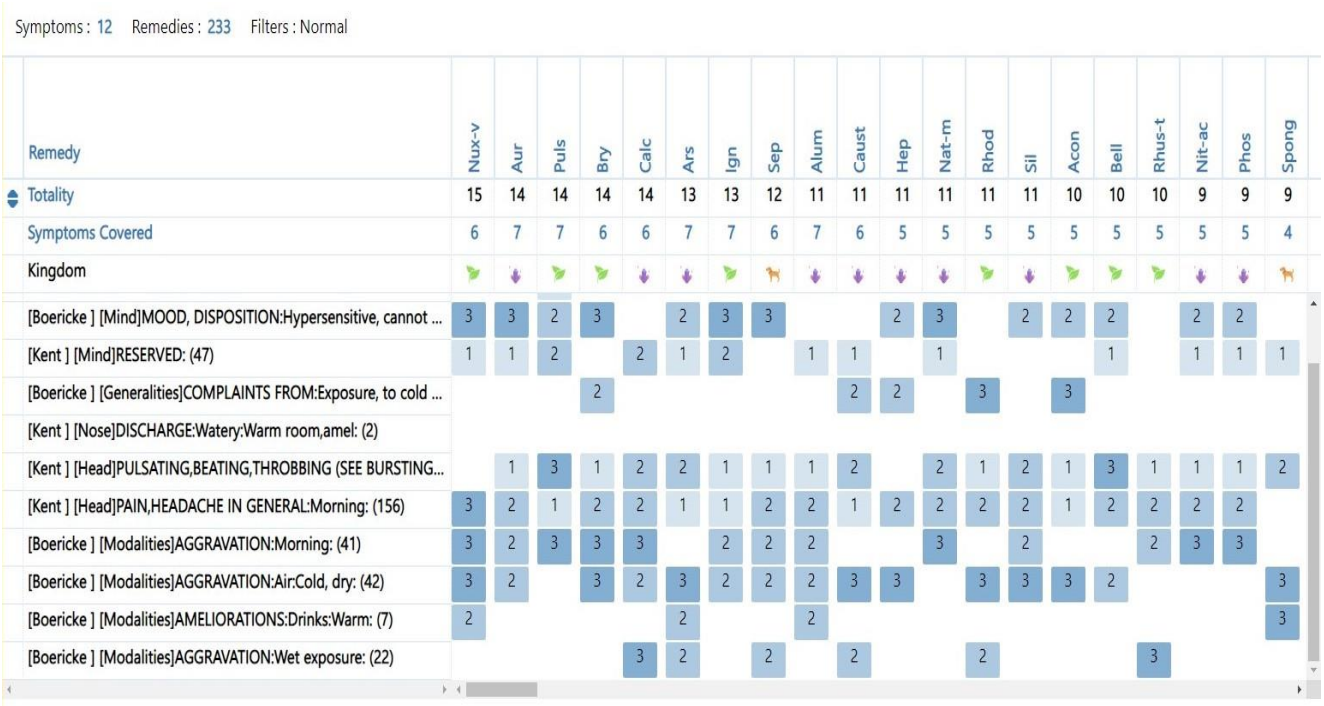

Fig. 1 Repertorial sheet with reportorial totality of the patient

Prescription:

Aurum metallicum 1M stat single dose was prescribed followed by placebo to be taken twice daily for 20 days. General counselling was provided.

Follow ups:

Date	**C/O at follow up visit**	**Assessment tool score**	**Counselling & supportive psychoeducation**	**Prescription**
09/01/2024	Detailed before	PCL- 5 Score: 58	He was very introvert person. Depressed, dwells on suicidal thoughts. Gets irritated at little things. Counselling was given to uplift his low mood and encourage talking to friends and family.	Aurum metallicum 1M single dose, followed by placebo. 4 globules to be taken twice daily. Follow up after 3 weeks.
30/01/2024	The patient had a c/o of sneezing and sleeplessness.	PCL- 5 Score: Not taken	There was a better feeling in patient. He said " He is feeling a positive energy in himself."	Placebo, 4 globules twice daily.

				Next follow up after 20 days.
22/02/2024	He used to sleep 6 hours per night without waking up at midnight.	PCL- 5 Score: 41	He was much calm in nature than before. He used to be very hurried in everything. The sleep c/o was getting much improved.	Aurum metallicum 1M single dose , followed by placebo, 4 globules twice a day. Next follow up after 20 days.
14/03/2024	The patient was generally feeling better	PCL- 5 Score: Not taken	The patient's spouse said, "He used to get irritable at trifle things, but now he is much calm and composed. He seems to be much happier these days." He was a bit stressed about his c/o sneezing and watery discharge from nose.	Aurum metallicum 1M single dose, followed by placebo, 4 globules twice a day. Next follow up after 20 days.
4/04/2024	General condition: better than before.	PCL- 5 Score: 30	There was no sneezing since last 15 days. The complaint of headache was completely resolved. He started sleeping for 8 hours at night without waking up frequently in midnight.	Placebo, 4 globules twice daily. Next follow up after 20 days.
25/04/2024	General condition was improved.	PCL- 5 Score: not taken.	The patient and his wife were very much happy and satisfied with the treatment. Advised to close the treatment and therapy until further problem noticed.	Placebo, 4 globules twice daily for 15 days; then stop the treatment.

Table 3. Follow up summary of the patient

DSM- 5 DIAGNOSTIC CRITERIA FOR PTSD

(A) Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

- Directly experiencing the traumatic event(s).
- Witnessing, in person, the event(s) as it occurred to others.
- Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
- Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse).

(B) Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

- Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
- Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
- Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)
- Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
- Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

(C) Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

- to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
- to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

(D) Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

- Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia, and not to other factors such as head injury, alcohol, or drugs).
- Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” “The world is completely dangerous,” “My whole nervous system is permanently ruined”).

- Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
- Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
- Markedly diminished interest or participation in significant activities.
- Feelings of detachment or estrangement from others.
- Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

(E) Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

- Irritable behavior and angry outbursts (with little or no provocation), typically expressed as verbal or physical aggression toward people or objects.
- Reckless or self-destructive behavior.
- Hypervigilance.
- Exaggerated startle response.
- Problems with concentration.
- Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

(F) Duration of the disturbance (Criteria B, C, D and E) is more than 1 month.

(G) The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

(H) The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition. [8]

Prognosis:

The sooner the case is diagnosed, the better the prognosis. However, it is not beneficial to begin the therapy immediately after the trauma since it does not decrease the rate of progression to PTSD. The symptoms can take over months to years in some individuals, and in some they may persist for a lifetime. [9]

Treatment:

- Psychotherapy: Psychotherapy is initiated after the diagnosis of PTSD. Counselling, catharsis, direct advice, education to build-up healthy coping skills, cognitive behavior therapy or hypnosis are essential.
- Pharmacotherapy: Drugs such as tricyclic anti- depressants, beta- adrenergic blockers, and other anti-anxiety drugs are indicated. [10]

HOMOEOPATHIC MANAGEMENT:

Applying the concepts of Dr. Hahnemann, homoeopathic medicines along with psychical remedy can prove helpful in alleviating the sufferings of the patient. However, there are very few studies and literature in support of role of homoeopathy in PTSD. [11] Following homoeopathic medicines can be thought of to be prescribed in cases of PTSD.

- AURUM METALLICUM-
    - Profound melancholy: feels hateful and quarrelsome; desire to commit suicide; life is a constant burden; with nearly all complaints. Constantly dwelling on suicide. Ailments from fright, anger, contradictions, mortification, vexation, dread, or reserved pleasure. Sensation as if heart stool still; as though it ceased to beat and then suddenly gave on hard thump. (12)
- ARSENIC ALBUM-
    - The greater the suffering, the greater the anguish, restlessness and fear of death. Mentally restless, but physically too weak to move; cannot rest in any place; changing places continually; wants to be moved from one bed to another, and lies now here now there. Attacks of anxiety at night driving out of bed, < after midnight. (12)
- NATRUM MURIATICUM-
    - Psychic causes of disease; ill effects of grief, fright, anger, etc. Depressed, particularly in chronic diseases. *Consolation aggravates*. Irritable; gets into a passion about trifles. Awkward, hasty. Wants to be alone to cry. Tears with laughter. Marked disposition to weep; sad weeping mood without cause, but consolation from others < her troubles. (12)(13)
- IGNATIA AMARA-
    - The remedy of great contradictions: Mental conditions rapidly, in an almost incredibly short time, change from joy to sorrow, from laughing to weeping; moody. *Persons mentally and physically exhausted by* long-concentrated grief. Mentally, *the emotional element is uppermost, and co-ordination of function is interfered with*. The *superficial* and *erratic character* of its symptoms is most characteristic. (12)(13)
- PSORINUM-
    - Anxious, full of fear; evil forebodings. Religious melancholy; very depressed, sad suicidal thoughts; despairs of salvation, of recovery. Despondent: fears he will die; that he will fail in business; during climaxis; making his own life and that of those about him intolerable. Driven to despair with excessive itching. (12)
- CARCINOSIN-
    - This is a remedy that lacks a definition of internal boundaries; therefore, it is very much affected by anything external coming in as an attack on the system. This can be in the form of an emotional external event such as grief. Carcinoid is one of the best medicine for highly capable, strong and refined personality who break down momentarily due to stress. They are highly sensitive, sensible and refined person with lots of energy. Insomnia. Strong craving for chocolate and sweets are another features of carcinoid. (14)

ASSESSMENT CRITERIA

PTSD Checklist for DSM-5 (PCL- 5)

This is a 20-item self-report measure that assesses the presence and of PTSD symptoms. Items on the PCL-5 correspond with DSM-5 criteria for PTSD.

Respondents are asked to rate how bothered they have been by each of 20 items in the past month on a 5- point Likert scale ranging from 0-4. Items are summed to provide a total severity score (range = 0-80). ()

0 = Not at all

1 = A little bit

2 = Moderately

3 = Quite a bit

4 = Extremely

Summing all 20 items (range 0-80) and using a cut-point score of 31-33 appears to be reasonable based upon current psychometric work as a minimum threshold for determining whether an individual has responded to treatment and 10 points as a minimum threshold for determining whether the improvement is clinically meaningful.

Response will be analyzed in to 4 criteria:

Mild- 33-23

Moderate- 23-13

Significant- 13-3

No improvement- 33 or above

Your worst event: _____

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
2. Repeated, disturbing dreams of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0 ○	1 ○	2 ○	3 ○	4 ○
4. Feeling very upset when something reminded you of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0 ○	1 ○	2 ○	3 ○	4 ○
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0 ○	1 ○	2 ○	3 ○	4 ○
8. Trouble remembering important parts of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0 ○	1 ○	2 ○	3 ○	4 ○
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0 ○	1 ○	2 ○	3 ○	4 ○
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0 ○	1 ○	2 ○	3 ○	4 ○
12. Loss of interest in activities that you used to enjoy?	0 ○	1 ○	2 ○	3 ○	4 ○
13. Feeling distant or cut off from other people?	0 ○	1 ○	2 ○	3 ○	4 ○
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0 ○	1 ○	2 ○	3 ○	4 ○
15. Irritable behavior, angry outbursts, or acting aggressively?	0 ○	1 ○	2 ○	3 ○	4 ○
16. Taking too many risks or doing things that could cause you harm?	0 ○	1 ○	2 ○	3 ○	4 ○
17. Being "superalert" or watchful or on guard?	0 ○	1 ○	2 ○	3 ○	4 ○
18. Feeling jumpy or easily startled?	0 ○	1 ○	2 ○	3 ○	4 ○
19. Having difficulty concentrating?	0 ○	1 ○	2 ○	3 ○	4 ○
20. Trouble falling or staying asleep?	0 ○	1 ○	2 ○	3 ○	4 ○

Fig. 2. PCL-5 (PTSD Checklist for DSM-5)

DISCUSSION

The case took a lot of patience and counselling by the physician to get the details of trauma from the patient's history. The patient used to get irritated at trifle things, unable to sleep for whole night since years. The prescription of Aurum metallicum 1M however helped the patient to overcome the emotions and trauma which he had kept suppressed since years. He was finally diagnosed with PTSD. The PCL-5 Score came from 58 to 30. Total 6 supportive psychotherapy sessions were given after diagnosing the caus. A significant change in patient's behavior towards self and family was observed after receiving her individualized medicine, Aurum metallicum with supportive psychotherapy.

The patient portrayed a positive attitude towards life after receiving the homoeopathic medicinal regimen through HPDTA approach, prescribed by Dr. Samuel Hahnemann in Organon of Medicine from Aphorism 225 to 227. The trauma which he experienced was the root cause behind all his complaints and discomfort. This case report may be considered as the basic direction to follow for homoeopathic management in PTSD cases.

The research studies on PTSD in general have been peaked since 2019; i.e. after COVID- 19. The mental health was immensely focused upon since last 3-4 years but there are very few studies done in homoeopathy.

The overall pooled prevalence of post-pandemic PTSD across all populations was 22.6%. Healthcare workers had the highest prevalence of PTSD (26.9%), followed by infected cases (23.8%) and the general public (19.3%).

More longitudinal studies with longer follow-up times after COVID-19 are needed. In addition to the research gaps noted, there are other methodological concerns with many of the current PTSD treatment trials that should be addressed in future trials. [15]

These questions are a subject of considerable research in homoeopathy.

CONCLUSION

This case forms a preceding guide for physicians and medical scholars, who seek to treat psychiatric illnesses, especially PTSD with homoeopathy following the principles given by Dr. Hahnemann in his Organon of Medicine. But, most of the psychiatric cases especially PTSD needs much patience and care towards the patient. Proper case taking and understanding of disease is needed. Commonest manifestation which has been observed in this case was sleeplessness and suicidal disposition. The patient was even hypertensive, he used to get irritated at trifle things, very self-dignified personality which helped to distinguish Aurum metallicum from other medicines.

SOURCE OF FUNDING & SPONSORSHIP

None

DECLARATION OF THE PATIENT'S CONSENT

The patient had given signed consent for publishing his case in a medical journal. He understands that the name and initials will not be published, and due efforts will be made to conceal the identity.

CONFLICT OF INTEREST

None declared.

ACKNOWLEDGEMENTS

None.

REFERENCES

1. https://www.psychiatry.org/patients-families/ptsd/what-is-ptsd (American psychiatric Association)
2. Georgieva I, Lepping P, Bozev V, Lickiewicz J, Pekara J, Wikman S, et al. Prevalence, New Incidence, Course, and risk factors of PTSD, Depression, Anxiety, and panic disorder during the Covid- 19 Pandemic in 11 Countries. *Healthcare (Basel)*. 2021 June 3; 9(6): 664. Available from: https://doi.org/10.3390/healthcare9060664
3. Kilpatrick DG, Resnick HS, Milanak ME, Miller MW, Keyes KM, Friedman MJ. National estimates of exposure to traumatic events and PTSD prevalence using DSM- IV and DSM- V criteria. *J Trauma Stress*. 2013 Oct 26 (5): 537-47. Available from: https://doi.org/10.1002/jts.21848
4. Loscalzo J, Fauci A, Kasper D, Hauser S, Longo D, Jameson J. Harrison's Principles of Internal Medicine (21st ed.), McGraw- Hill Education, New York, 2021.
5. Russell L. Cecil, Lee Goldman, J. Claude Bennet. Cecil Textbook of Medicine (21st ed.), W.B. Saunders, Philadelphia, 1927.
6. VMD Namboodri. Concise textbook of psychiatry (3rd ed.), Elsevier, India, 2004.
7. A. Talboot, Robert E. Hales, Stuart C. Yudofsky. Textbook of Psychiatry (1st ed.), The American Psychiatric Press Inc., 1998.
8. Diagnostic and Statistical Manual of Mental Disorders (5th ed.) DSM- 5
9. Papadakis M, McPhee S, Rabow M, McQuaid K. Current Medical Diagnosis and Treatment (61st ed.) Columbus, OH: McGraw- Hill Education; 2021.
10. KV Krishna Das. Textbook of Medicine (6th ed.), Jaypee Brothers Medical Publishers, India, 2017.
11. S Priya, B Ankit, C Kathika. Managing post traumatic stress disorder with homoeopathy: A case report. *International Journal of Homoeopathic Sciences.* 2022; 6(4): 524- 531. Available from: https://doi.org/10.33545/26164485.2022.v6.i4h.706
12. H. C. Allen. Allen's Keynotes Rearranged & Classified: with leading remedies of the materia medica and bowel nosodes: 10th ed., B. Jain Publishers Pvt Ltd. 2005.
13. William Boericke. Boericke's New Manual of Homoeopathic Materia Medica with Repertory, 3rd revised and augmented edition based on 9th ed. B. Jain Publishers (P) Ltd. 1901.
14. Dr. Kirtida Desai, A case study of carcinosin in post traumatic stress disorder: *International Journal of Homoeopathic Sciences* 2022; 6(2): 272-273. Available from: https://doi.org/10.33545/26164485.2022.v6.i2e.568
15. Yuan, K., Gong, Y. M., Liu, L., Sun, Y. K., Tian, et. al. Prevalence of posttraumatic stress disorder after infectious disease pandemics in the twenty-first century, including COVID-19: a meta-analysis and systematic review. *Molecular psychiatry*, (2021) *26*(9), 4982–4998. Available from https://doi.org/10.1038/s41380-021-01036-x