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Case Report

Homoeopathic Medicines

Individualised Homoeopathic Medicines Alleviated the Recurrent Epistaxis in Identical Twins with Severe von Willebrand Disease and Haemophilia A: A Duo Case Report

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Background: von Willebrand Disease (vWD) is an inherited genetic bleeding disorder that prevents the blood from clotting. The prevalence of vWD is estimated to be approximately 1% of the population (or 10,000 cases per million population). The vWF binds and stabilizes blood clotting factor (FVIII) in circulation and therefore it helps in clot formation.

Case Profiles: This duo case report is the classical example of the association of vWD with haemophilia A in identical twins, where both the patients shared the same disease pattern and manifestations like recurrent epistaxis & ecchymotic patches. But when it came to homoeopathic prescription both of them were prescribed 2 different constitutional medicines based on their behaviour, constitution, etc.

Result and Discussion: The ISTH-BAT (International Society on Thrombosis and Haemostasis-Bleeding Assessment Tool) scale was used to measure the frequency of epistaxis and bruises which reduced from 6 to 1 in the elder twin and from 7 to 4 in the younger one. Modified Naranjo Criteria in Homoeopathy was used to assess the homoeopathic result with a score of 10 for the elder twin and 8 for the younger twin. This Duo Case Report signifies the role of two different Individualized Homoeopathic Medicines in identical twins though sharing a similar disease pattern.

Conclusion: Homoeopathic medicines prescribed based on individualization alleviated the genetic disease symptoms and improved the quality of life of the patients and the family members.

Keywords: von Willebrand Disease, Haemophilia A, Identical Twins, Individualized Homoeopathic Medicine

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Introduction

Von Willebrand Disease (vWD), is an inherited bleeding condition, primarily characterized by von Willebrand factor deficiency (vWF) or dysfunction. vWF is a plasma protein that binds and stabilizes blood clotting factor (FVIII) in circulation as well as mediates the first adhesion of platelets at sites of vascular damage. Therefore deficiencies in vWF can result in bleeding by reducing the concentration of FVIII or by weakening platelet adhesions [1][2][3] [4].

VWD is classified into 3 primary categories, Type 1, Type 2, and Type 3. Type 1 comprises partial quantitative deficiency, Type 2 comprises qualitative defects, and Type 3 comprises of virtually complete deficiency of vWF. vWD Type 2 is further subdivided into 4 secondary categories, Type 2A, Type 2B, Type 2M, and Type 2N, respectively. The prevalence of vWD has been estimated in different countries, with numbers ranging from around 23 to 110 per million people affecting approximately 0.1 to 1% of the population [5][6][7].

It is typified by excessive mucocutaneous bleeding and is brought on by quantitative or qualitative von Willebrand abnormalities. The ABO blood group strongly influences the plasma vWF: Ag (vWF: Antigen) concentrations [7], [8].

In Haemophilia A, the lack of Factor VIII (FVIII) coagulant activity (FVIII: C) is associated with either a quantitative or a qualitative of plasma FVIII caused by a variety of abnormalities in the FVIII gene, which is located at Xq28 near the tip of the long arm of the X chromosome [9]. The mechanism of FVIII insufficiency in vWD is substantially different from that of healthy people because vWF is a protein that carries and stabilizes FVIII in blood. Therefore in "Classical" (type I and III) vWD, the decreased plasma vWF level consequently indirectly causes FVIII insufficiency [10] [11].

These findings help to explain why vWD has historically been associated with a prolonged bleeding time (BT) and decreased FVIII: C, despite being first classified as an autosomal dominant hemorrhagic disorder [12]. The possibility of a "truly autosomal type of haemophilia A" was raised if the FVIII binding location on vWF was changed without compromising the structural features required for primary haemostasis [13] [14].

The cases described in this duo case report are monozygotic twins, often known as identical twins, which are produced when a single fertilized egg divides into two different cells and develops into two individuals.

Therefore, the genetic manifestations of identical twins are the same. The frequency of identical twins among the whole population is approximately 0.4% [15].

The main objective of this duo case report is to explicit the role of individualized homoeopathic medicines in such type of rare combination of the two genetic disorders.

In this duo case report both the identical twins were suffering from similar genetic diseases with similar manifestations. What differed in both the twins was their reactions, their behaviour, their mental make-up, their likings and dislikes, etc.

Which were the points considered while prescribing the Individualized homoeopathic medicines. Therefore it is said that the homoeopathic prescription was based on the individual's context of the patient and not the disease.

Homoeopathic medicines prescribed based on individualization showed noticeable results by restoring health reducing the intensity of the genetic disorder and maintaining the optimum quality of life of the patient as well as their family members [16] [17].

Materials and methods

Study Setting: The study was conducted at Homoeopathy in Haemophilia (HIH) Amravati Center.

Study Duration: 2 years.

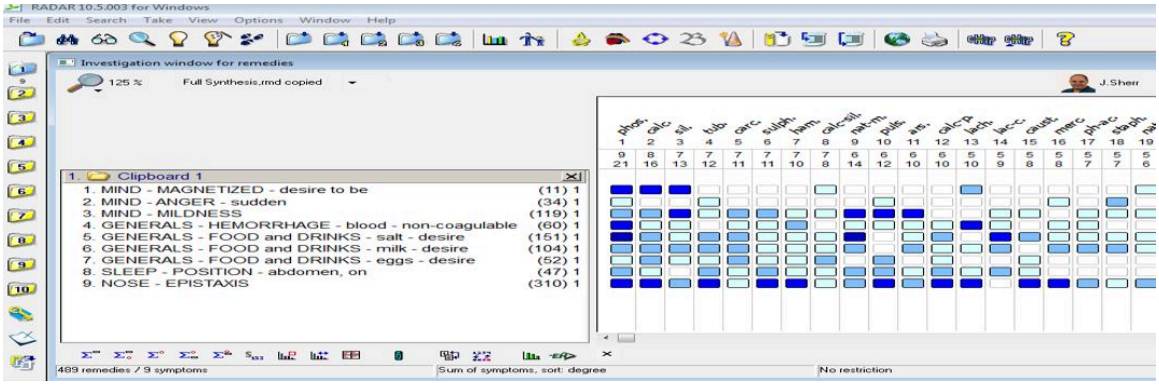
Method of Measurements: ISTH-BAT18 (International Society on Thrombosis and Haemostasis) Bleeding Assessment Tool was used to measure the frequency of the episodes before and after the homoeopathic treatment. [18]

Tools for Data Collection: HIH Case recording format and the daily diaries written by the parents of the patients were used to gather the information. And for Repertorization RADAR-10.5software was used. [19]

CASES: (Table 1)

	Case 1	Case 2
Patient's Information	Age – 4 years, Gender – Male, Height – 99 cms, Weight – 14 kgs	Age – 4 years, Gender – Male, Height – 95 cms, Weight – 15 kgs
Chief Complaints	The patient presented with the complaint of Recurrent Epistaxis (5 to 6 times a month) and recurrent ecchymotic patches on 21/12/2020. The epistaxis was managed by traditional practices like applying Turmeric (haldi) and packing it with a cotton ball, etc.	The patient presented with the complaint of Recurrent Epistaxis (6 to 7 times in a month) accompanied by recurrent cold and coryza and recurrent ecchymotic patches on 21/12/2020. The epistaxis was managed by traditional practices like applying Turmeric (haldi) and packing it with a cotton ball, etc.
Family History	Consanguineous marriage between parents was presumed to be one of the reasons for genetic disease. No other apparent history of bleeding disorder was found in the family history of the mother and father. Elder Sister: vWD Positive (Menorrhagia and Metrorrhagia observed during the Menstrual Periods).	
Physical Generals	Desires - Salt ++, Milk ++, Eggs +. Sleep: Sound. Sleep position: Abdomen on. Bowel Habit: Regular Thirst & Appetite: Adequate. Thermals – Chilly.	Desires – Milk ++, Eggs ++, Indigestible things +. Sleep: Sound. Sleep position: Abdomen on. Bowel Habit: Regular Thirst & Appetite: Adequate. Thermally – Hot
Mental Generals	Mild in nature. The patient had a strong desire to be magnetized. Gets angry occasionally but that is sudden.	Mischievous, and amusement desire for. Great Loquacity was noted while talking during the case-taking
Constitution	Lean and thin	
Miasmatic trait20	Tubercular Miasm – hemorrhagic diathesis, constitution of the patient	Tubercular Miasm – hemorrhagic diathesis, the constitution of the patient, recurrent cold and coryza.
Diagnostic Assessment	Pre-diagnosed case of Type 3 vWD (vWF Ag levels – 0.1%) with Mild Haemophilia A (8.6%)	Pre-diagnosed case of Type 3 vWD (vWF Ag levels – 2.0%) with Mild Haemophilia A (8.6%)
Therapeutic Intervention with Justification	1. Phosphorus 30 CH/ 1 dram/ 4 pills BD for 3 days/ Then 4 pills weekly once OD for 4 months. 2. Nihilinum 200/ 8 Dram/ 4 pills BD – Daily for 4 month. (Phosphorus was prescribed taking into consideration the nature of the patient, his mildness, magnetized desire to be, anger sudden, his desires, and his behaviour during the bleeding phase i.e. craves company and touch & rubbing, and help etc.)	1) Lachesis 30 CH/ 1 dram/ 4 pills BD for 3 days/ Then 4 pills weekly once OD for 4 months was prescribed. 2) Rubrum 30 / 8 Dram/ 4 pills BD – Daily for 4 months. (Lachesis was prescribed based on Loquacity, nature, desires & aversion, and his behaviour during the disease phase, etc.)
Repertorial Sheet	Refer to Fig. no. 1	Refer Fig. no. 3
Photographs of Patients	Refer Fig. no. 2 (A&B)	Refer to Fig. no. 4 (A&B)
Follow up with an evaluation of the effect of homoeopathic treatment.	After the regular follow-up and treatment – the frequency of epistaxis reduced from 5-6 episodes per month to 1-2 episodes per year (that too managed with homoeopathic medicine alone). Also the frequency of recurrent ecchymosis reduced, and now occurs only after injury. Now the patient is 6 years old. He required factor infusion only twice (before homoeopathic treatment) one at the time of diagnosis (at the age of 2 years) and the other at the time of head injury (at the age of 2.5 years). To the present date (i.e. till February 2023) the patient is settled and there is no relapse of Epistaxis.	After the regular follow-up and treatment – the frequency of epistaxis reduced from 6-7 episodes per month to 5-6 episodes per year. The frequency of recurrent ecchymosis reduced, and now occurs only after injury. The frequency of recurrent colds and coryza was also reduced. Now the patient is 6 years old and has not required the factor infusion since May 2022. Taking homoeopathic treatment over some time improved the condition of the patient. To date (i.e. till February 2023) the patient is settled with epistaxis, recurrent cold coryza and ecchymosis.

Repertorial Sheet of Case 1 with Rubrics: (Figure 1)



MIND – MAGNETIZED – desire to be
MIND – ANGER – sudden
MIND – MILDNESS
GENERALS - HEMORRHAGE – blood – non-coagulable
GENERALS – FOOD and DRINKS – salt - desire
GENERALS – FOOD and DRINKS – milk - desire
GENERALS – FOOD and DRINKS – eggs - desire
SLEEP- POSITION – abdomen, on
NOSE - EPISTAXIS

Pictures of Case 1 –

Figure 2 A - During Bleeding - (08/06/2022)

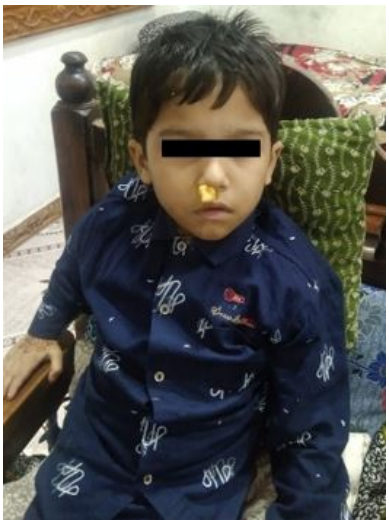
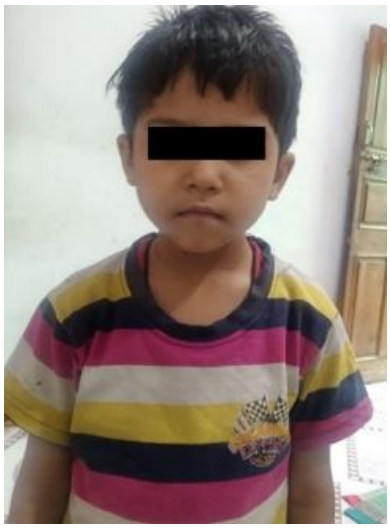
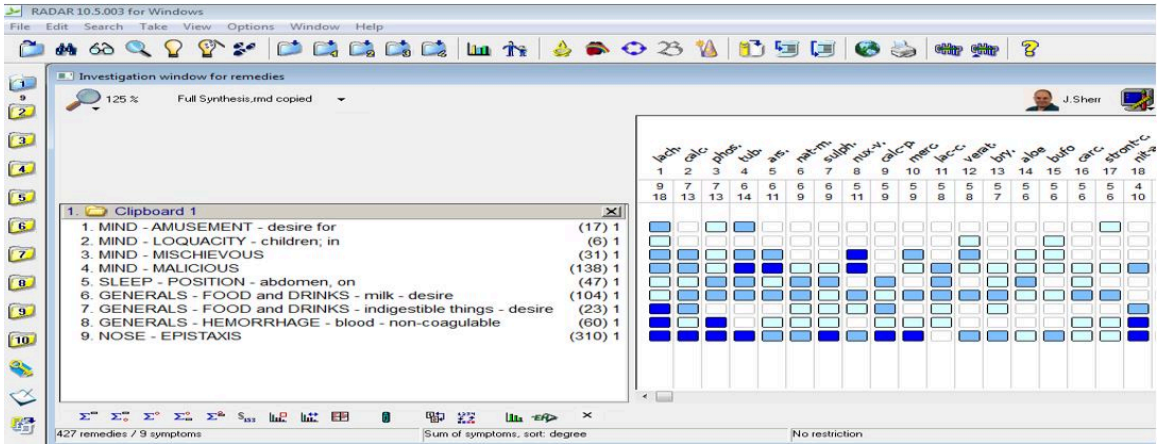


Figure 2 B - After Bleeding - (09/06/2022)



Repertorial Sheet of Case 2: (Figure 3)



MIND – AMUSEMENT – desire for
MIND – LOQUACITY – children; in
MIND – MISCHIEVOUS
MIND – MALICIOUS
SLEEP – POSITION – abdomen, on
GENERALS – FOOD and DRINKS – milk – desire
GENERALS – FOOD and DRINKS – indigestible things - desire
GENERALS - Hemorrhage – blood – non-coagulable
NOSE - EPISTAXIS

Pictures of Case 2 –

Fig 4 A - During Bleeding - (04/06/2022)

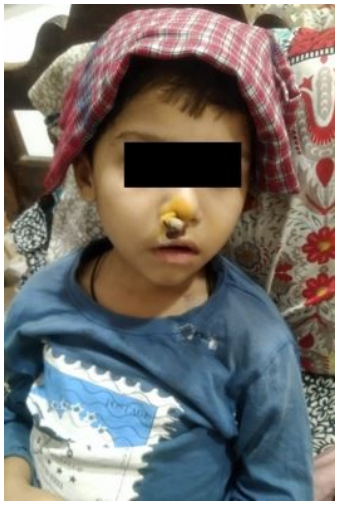


Fig 4 B - After Bleeding - (05/06/2022)

Table 2 - Follow-ups of Case 1 and Case 2

	No. of Follow-ups of each case	Date	Symptoms	Factor Infusion	Prescription
Case 1	1	08/04/2021	1. Epistaxis did not occur in the last 4 months. 2. Now hematoma occurs only after injury.	(Managed with homoeopathic medicines only)	1. Phosphorus 30CH/1 dram/ 4pills weekly once only. 2. SL 200/ 8 dram/ 4-4 for 4 months
	2	31/08/2021	1. No episode of epistaxis in the last 4 months occurred. 2. Hematomas are now negligible.	(Managed with homoeopathic medicines only)	1. Phosphorus 30CH/ 1dram/ 4pills weekly once only. 2. Nihil 6/8 dram/ 4-4 for 4 months.
	3	20/12/2021	No complaint present.	(Managed with homoeopathic medicines only)	1. Phosphorus 30CH/ 1dram/4 pills weekly once only. 2. Rubrum 200/4 dram/4-4 for 2 months.
	4	05/02/2022	1. The frequency of epistaxis is almost negligible. 2. Hematoma frequency is also negligible.	(Managed with homoeopathic medicines only)	1. Phosphorus 30CH/ 1dram/4 pills weekly once only. 2. PL 30/8 dram/4-4 for 4 months.
	5	04/06/2022	Epistaxis occurred once on 23/03/2022. Managed with homoeopathic medicines only. No factor is required.	(Managed with homoeopathic medicines only)	1. Nihilinum 6/ 8 dram/ 4-4 for 4 months.
	6	26/11/2022	Epistaxis occurred only once on 08/06/2022 (Figure 2). Managed with homoeopathic medicines only.	(Managed with homoeopathic medicines only)	1. Phosphorus 30CH/1 dram/ 4pills-SOS for Epistaxis. 2. Nihilinum 200/8 dram/4-4 for 4 months.
Case 2	1	08/04/2021	1. Epistaxis occurred 2 times since the last medicine prescribed. 2. Hematoma and its intensity of swelling reduced.	02/02/2021 – Epistaxis – Inj. Factor VIII 250 IU Stat.(2 Times)	1. Lachesis Mutus 30CH/ 1dram / 4 pills weekly once. 2. SL 200/ 8 dram / 4-4 for 4 months.
	2	31/08/2021	1. Epistaxis occurred once in the last month – Took homoeopathic medicines and stopped. 2. The intensity of hematoma is also reduced.	(Managed with homoeopathic medicines only)	1. Lachesis 30 CH/ 1 dram/ 4 pills weekly once only. 2. SL 1M/ 8 dram/ 4-4 for 4 months.
	3	20/12/2021	1. Epistaxis occurred on 28/10/2021 and 03/11/2021 – both these episodes were managed with homoeopathic medicines alone.	(Managed with homoeopathic medicines only)	1. Lachesis Mutus 30CH/ 1 dram/ 4 pills weekly once only. 2. Nihilinum 6/4 dram/4-4 for 2 months.
	4	05/02/2022	1. Frequent Epistaxis persisted. 2. Frequency of Hematoma reduced.	(Managed with homoeopathic medicines only)	1. Lachesis Mutus 200CH/ 1dram/ 4 pills weekly once only. 2. Rubrum 30/8 dram/4-4 for 4 months.
	5	04/06/2022	1. Epistaxis again occurred on 04/06/2022 that too with coryza and stoppage of the nose (Figure 4). Factor infusion is done for the same along with homoeopathic medicines. 2. Hematoma frequency reduced.	1) 11/05/2022 - Inj. Factor VIII 500 IU Stat. 2) 12/05/2022 - Inj. Factor VIII 500 IU Stat. 3) 19/05/2022 –Infused Plasma for Epistaxis	1. Ammonium Carbonica 200CH/ 1dram/ 4 pills – Every Sunday and Wednesday morning only. 2. PL 30/ 8 dram/4-4 for 4 months.
	6	26/11/2022	1. No episode of Epistaxis occurred since the last medicine. 2. Frequency of Hematoma reduced much.	-	1. Nihilinum 200/ 8 dram/ 4-4 for 4 months.

Table 3 - Assessment with ISTH Score - Bleeding Assessment Tool for both the Twins

Symptoms	Before Homoeopathic Treatment ISTH Score		After Homoeopathic Treatment ISTH Score	
	Case 1	Case 2	Case 1	Case 2
1. Epistaxis	3	4	0	4 (but the intensity reduced)
2. Ecchymotic Patches (Bruises)	3	3	1	0
Total	6	7	1	4

The ISTH Bleeding Score for Case 1 had reduced from 6 to 1 and for Case 2 it reduced from 7 to 4 after the homoeopathic treatment.

Result

There had been a reduction seen in the score of Epistaxis and ecchymotic patches before and after the homoeopathic treatment. In the elder twin, the ISTH Score was found to be 6 before the homoeopathic treatment which was reduced to 1 after the regular homoeopathic treatment.

Whereas the younger twin had a score of 7 before the homoeopathic treatment which had reduced to 4 after the homoeopathic treatment (Table 3).

Discussion

The cases explained in this duo case report are of Type 3 autosomal recessive character.

Also, consanguineous marriages lead to defective recessive genes remaining in the family21. Both the patients were identical twins, diagnosed with severe vWD (Type 3 – autosomal recessive) and Factor VIII deficiency (Haemophilia A). The elder twin was represented with recurrent episodes of epistaxis along with frequent bruises at the age of 4 years. After regular follow-ups (Table 2) and continued homoeopathic treatment, the frequency of epistaxis (Figure 2) and ecchymotic patches significantly reduced (Table 3) from 6 to 1. Phosphorus 30 (Figure 1) was prescribed on an individualized 16 basis (personalized 22-24), as per the laws of homoeopathy. The younger twin also presented with complaints of frequent epistaxis with cold and coryza and repeated ecchymotic patches. After subsequent follow-ups (Table 2) the frequency of epistaxis (Figure 4) and ecchymosis reduced from 7 to 4 (Table 3) according to ISTH (International Society in Thrombosis and Haemostasis) Bleeding Assessment Tool. Lachesis 30 (Figure 3) was prescribed on an individualized basis considering the mental and physical plane of the patient. The patient's elder sister was also suffering from vWD. The Factor infusion was done when and where required (Table 2).

This is the Era of Alternative Medicine. Homoeopathy is considered a leading alternative and complementary system of medicine in India. A study was conducted in which the usage of alternative and complementary medicine by haemophiliacs was described and was about 42.3% [25]. Among these users, 43.5% of the haemophiliacs were availed by homoeopathic medicines. Therefore the role of homoeopathy in such rare genetic disorders should be elicited by such case reports that help us to know the scope of our science. Homoeopathy is a science based on symptom similarity [26] (Law of Similar) rather than disease diagnosis. Homoeopathic Individualized [16] prescription in this case report was made by considering the peculiar symptoms including the mental general, physical general and characteristic particulars irrespective of the disease diagnosis. The symptom similarity was the ultimate guide for the prescription. Though the cases were identical twins with a similar genetic disease, with similar kinds of manifestations, both of them possessed a different kind of constitution and different behaviour and that compelled us to select two different homoeopathic medicines according to their constitutions respectively.

The twins were different in their constitution and so were prescribed two different homoeopathic medicines based on their individuality. The role of homoeopathic Individualized medicines should be explored in other genetic diseases too, where genetic testing remains unattainable by the patients, as it helps to bypass many of the costliest investigations.

The limitation of this study lies in the prevalence of the disease, as it is a rare genetic disease and upon to that with its rare combination, collecting a large sample size is not possible.

Due to the low prevalence of the disease, limited health budget, and pressing public health priorities, expensive haemophilia treatment does not garner any support from public health functionaries. And here homoeopathy has a vital role to play in its action in the context of treatment and also its cost-effectiveness.

Lastly, the homoeopathic treatment in both these cases was assessed by using Modified Naranjo Criteria in Homeopathy (MONARCH) [27] with a score of 10 for the elder twin (Case 1) and 8 for the younger twin (Case 2) respectively.

Conclusion

Homoeopathic medicines prescribed on an Individualized basis in identical twins with vWD along with Haemophilia A substantially reduced the frequency of Epistaxis and ecchymotic patches.

The ISTH score before the homoeopathic treatment for the elder twin was 6 which was reduced to 1 whereas in the younger one, it reduced from 7 to 4 and thereby improved the Quality of Life of both the patients.

A larger multicentric and multidisciplinary study set up using homoeopathy as an adjuvant therapy for rare genetic diseases is the need of the hour, especially in countries like India where the Indian system of medicine is promoted.

Conflict of Interest: The Authors have no conflicts to disclose.

Declaration of Patient Consent: A written informed consent was obtained from the patient's parents for publication of photographs for scientific study purposes.

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