



GARDNER- DIAMOND SYNDROME IN THE CHILD-A CASE -REPORT

Psychiatry

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ABSTRACT

Here we are reporting a case of 10 years old girl presented with spontaneous bleeding from apparently normal skin post-mechanical wound with normal coagulation parameter. Mixed anxiety and depressive was diagnosed and temporal relationship was well established between perceived stressors and bleeding and stress act as a main perpetrator for it. This case highlights psychiatric illness association with bleeding manifestation.

KEYWORDS

Gardner-Diamond Syndrome, Purpura, Clotting time, Bleeding Time

INTRODUCTION:

- Gardner-Diamond Syndrome, also known as auto-erythrocyte sensitisation¹ syndrome, is a rare² psychosomatic disorder usually preceded by a series of mechanical wounds (surgery or trauma) results in blood extravasation and exposure to antigens. It's characterized by recurrent, spontaneous bruising or hematoma formation without apparent external trauma. The condition is often associated with emotional stress³ or psychological distress, and the skin manifestations are believed to result from an autoimmune response triggered by the patient's own RBCs.
- It follows a relatively benign pathway of variable severity, characterized by a relapse-remission course. Notably, such manifestation may recur even after months to years of remission³.

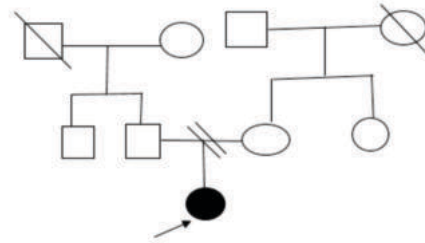
Case History:

- A 10-year-old Hindu girl X studying in 5th class, whose parents are divorced 5yrs ago currently staying with father referred to the psychiatry OPD from pediatric department with C/O recurring episodes of spontaneous bleeding over apparently normal skin for the past 1 month. It started when she got hit by a cricket ball, on her Lt temple resulting in a brief period of bleeding for < 10 min, stopped after applying pressure with compression bandage.
- Next day she was verbally abused by mother on phone call, Then She had spontaneous bleeding from normal healthy skin at 6 sites of the body (palms and cheeks, Lt lower conjunctiva, wrist, dorsum of the hands, lips) around 1-2 ml for <10 minutes and stopped spontaneously. For whole day it bled for 15-20 times from different sites of body at different times. Next day she was taken to local general physician and treated symptomatically with tab Tranexemic acid 500mg BD. But she continued to have these types of bleeds whenever family members (mother, maternal grandfather, maternal aunt) and class teachers abuse her verbally or physically with no apparent external trauma, and even on witnessing Interpersonal disputes of divorced parents over phone calls.
- She was consulted and evaluated at different hospitals for 1 month with no cause elicited for her bleeding disorder. Later she was referred to psychiatric Department. On further evaluation, apart from that, she was found to be having dull mood, reduced energy, decreased interest in pleasurable activities and excessive sleep (> 12 hours a day) for past 1 month. Alongside these symptoms, she had on and off episodes of headache, fever, myalgia, and dizziness following the bleeding.
- Negative history:
 - No H/o conversion disorder, Malingering, factitious disorder
 - No history of Henoch Scholein purpura /Ehler -Danlos Syndrome/ Idiopathic Thrombocytopenic Purpura/Systemic Lupus Erythematous.
 - Past History-Null significant

Family History:

She is a single child in the family. Father-mother got divorced 5 years back. She is living with mother, maternal aunt & maternal grand-father for the past 5 years, witnessing argument between mother-father on

phone calls frequently regarding her health, care and education. For that she has having distress regarding their separation. She used to visit father's house occasionally (twice-thrice in year) stays maximum for 1 month. Now she is staying with father for 4 months.



No history of psychiatric illness/bleeding diathesis in family. No history of seizure, suicide, substance abuse in a family.

On Mental Status Examination psychomotor activity is reduced, sad mood, anxious affect with thought content- preoccupied with dispute between father-mother. Higher mental functions were normal.

- On a detailed evaluation a temporal relationship was well established between perceived stressors and bleeding and stress act as a main perpetrator for it.
- A diagnosis of moderate depressive disorder with somatic syndrome (HAM-D score: 21) and moderate anxiety (HAM-A score: 23) was made following ICD-10 criteria (F32.10).

INVESTIGATIONS:

Investigation were normal as shown in table below.

INVESTIGATIONS	FINDINGS
• CBC	• Normal
• HbA1c	• 5
• pANCA	• Normal
• cANCA	• Normal
• PT	• 9.9 sec
• INR	• 1.04
• BT	• 3 min
• CT	• 400sec
• APTT	• 31.5 sec
• Vwf	• Normal
• Factor VIII	• 100%
• Factor IX	• 80.2%
• Factor XI	• 90.4%
• RFT	• Normal
• LFT	• Normal
• TFT	• Normal
• CD41a,CD61, CD42b	• Positive
• FASTING LIPID	• Normal
PROFILE	



Pictures showing spontaneous bleeding and petechiae from normal skin during stressful condition.

She was started on Tab. Escitalopram 10 mg & Tab. Clonazepam 0.5 mg. Review after 1 month showed significant improvement in mood symptoms with HAM-D score 10 & HAM-A score 15. The patient has been maintaining well on the medication for over 3 months, without further episodes of bleeding.

DISCUSSION:

- Gardner-Diamond Syndrome typically noted in women with psychiatric co-morbidity; in men and adolescents, usually preceded by a series of mechanical wounds (surgery or trauma) characterized by painful edematous skin lesions predominantly in extremities which may be isolated or multiple, progressing to unexplained petechiae, ecchymosis or purpuric lesions with no apparent identifiable cause is known to occur next 24hrs following severe stress or emotional trauma.
- In this case, it found in a child of age 10 years having spontaneous painless bleeding from apparently healthy skin and Petechiae formation with normal coagulation parameter following a physical or emotional stress.
- Multiple factors related to the occurrence of bleeding have been suggested, including immunologic, hematology, hormonal, vascular, and inflammatory factors⁵. There has been exploration of the association between the neuroendocrine axis and human behavior, suggests how psychiatric disorders manifest somatically.

CONCLUSION:

- Gardner-Diamond syndrome is a rare phenomenon that should be considered as differential diagnoses of conditions in which unexplained petechiae, ecchymosis or purpuric lesions are noticed and no apparent identifiable cause is known. The role of psychological association should always be considered in this case.
- Recognizing these associations as early could prevent unnecessary procedures, emphasizing the significant role of stress in Gardner Diamond syndrome that should not be overlooked.
- This report highlights the importance of awareness among various medical specialists including psychiatrists, histopathologists, internal medicine specialists, dermatologists and pediatricians regarding the associations observed in a psychological context.
- This awareness is crucial as may be presented as a diagnostic dilemma, necessitating thorough investigation and accurate diagnosis
- Complete Psycho-dermatologic evaluation and the liaison between dermatology, primary care, and psychiatry are of vital importance for the management of these conditions⁵.
- Treatment of this condition is controversial. Psycho-immunological hypothesis postulates the existence of neuro-immuno-endocrine network which explains the efficacy of antidepressants and anxiolytics. In our case it showed adequate response with SSRI and benzodiazepine.

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