Case Report

Antidepressant-induced Remission of Gardner Diamond Syndrome

Neena Sanjiv Sawant, Deepika Abhainath Singh

ABSTRACT

We describe the clinical presentation of a 25-year-old female patient who presented in dermatology with recurrent episodes of painful ecchymotic bruising over the anterior aspect of both arms and face. On enquiry, these episodes were precipitated by emotional stress and were preceded with a history of fall from the stairs. The patient also had multiple stressors in her day-to-day life and symptoms of depression. A diagnosis of mild depressive disorder without somatic complaints and Gardner Diamond syndrome was made. The patient was started on antidepressants, which not only improved her mood symptoms but also caused a remission of her painful bruises.

Key words: *Antidepressants, auto erythrocyte sensitization syndrome, Gardner Diamond Syndrome*

INTRODUCTION

Gardner Diamond syndrome is a psychologically induced painful bruising condition. The exact etiology of the syndrome is an enigma even today, since its first description in 1955 when Frank Gardner and Louis Diamond described four adult women with painful ecchymosed lesions, reproducible after an intradermal injection of the patient's own red blood cell (RBC), and suggested a theory of hypersensitivity to erythrocyte as the cause of its occurrence. This condition was named autoerythrocyte sensitization syndrome. However, this theory has never been proven, and the usefulness of the test itself remains controversial.[1]

Later, Agle and Ratnoff[2] noted the psychological factors underlying the disorder and renamed the syndrome psychogenic purpura; however, the mechanism of this syndrome still remains unknown. Autoerythrocyte sensitization syndrome usually affects women, although occasional reports in men and children are present in the literature.[1-4] In this syndrome, bruises can develop anywhere on the body but are usually located on the extremities. There is usually a prodrome of warmth and pain at the bruising site or systemic symptoms such as headache, nausea, or vomiting. The typical skin lesion is a painful, erythematous bruise that starts after minor trauma or surgery and often involves an area away from the injury site. The skin manifestations can be debilitating, and reappear unpredictably for an indefinite period.[5] Organic factors are seldom identified. There is no laboratory test to confirm the diagnosis. It is a diagnosis of exclusion after ruling out other bleeding disorders. Skin biopsy shows extravasated RBCs but no evidence of vasculitis.[1] We report a patient with Gardner Diamond syndrome who was also having depressive features with amelioration of both depressive symptoms and the ecchymosed lesions with antidepressant treatment.

Access this article online	
Website: www.ijpm.info	**Quick Response Code**
DOI: 10.4103/0253-7176.108229	

CASE REPORT

A 25-year-old young, married woman was referred to the psychiatry outpatient department by the

Department of Psychiatry, Seth G.S. Medical College and KEM Hospital, Parel, Mumbai, Maharashtra, India

Address for correspondence: Dr. Singh Deepika Abhainath
Department of Psychiatry, G.S. Medical College and KEM Hospital, Parel, Mumbai - 400 012, Maharashtra, India. E-mail: deepika765@gmail.com

dermatologist. A detailed evaluation revealed that the patient was having depressive symptoms since a year. Her predominant symptoms included sadness of mood, helplessness, hopelessness, feeling of lethargy, and inability to do her routine household work. This created interpersonal problems with her in-laws who considered her to be slow in her work and would repeatedly taunt her. The patient was married young and she still had difficulty in adjusting in her in-laws' home. She had also lost her mother at a young age and was unable to share her marital problems with any of her relatives including her siblings. The ongoing continuous interpersonal stressors had now affected her sleep and appetite, and since a year, she had also become very irritable. She was extremely worried about her future and felt that her situation was hopeless. It was during one of her visits to her dermatologist that she voiced her grievances due to which she was referred to psychiatry.

The detailed psychiatry evaluation revealed the patient to be suffering from a mild depressive disorder without somatic symptoms as per the ICD10 criteria.[6] She had recently developed symptoms of bruising associated with pain over arms and face, occurring recurrently after a fall from the stairs for which she was under treatment from the dermatologist and was diagnosed as having Gardner Diamond syndrome. These symptoms of bruising and associated pain would occur nearly on a daily basis on either her arms, forearms, or predominantly over her cheeks [Figure 1]. They would resolve over a week and new lesions would crop up. As per the dermatologist, there was no known treatment for this syndrome, and the patient was prescribed analgesics for the symptoms of pain. In view of her depressive symptoms, the patient was started on antidepressant Tab. escitalopram 5 mg at night, which was gradually increased to 10 mg over the next fortnight. What was surprising was that as her depression improved and the patient started feeling better, her symptoms of recurrent bruising and pain completely subsided and in her follow-up of 2 months, the patient is currently symptom free, maintained on the antidepressant.

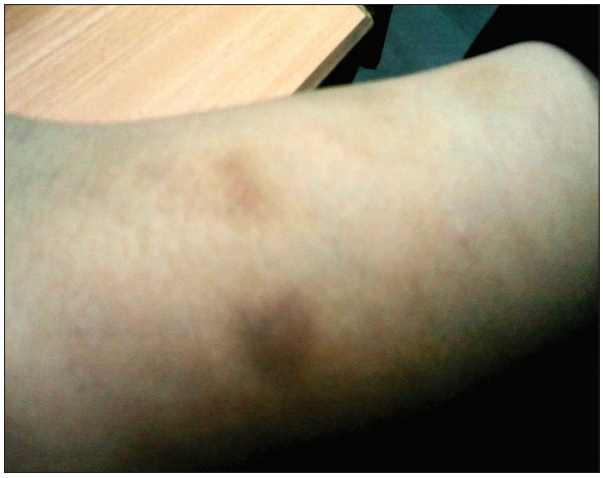

Figure 1: Ecchymosed bruising on arm

DISCUSSION

Gardner and Diamond believed that the syndrome was due to auto-sensitization, as has been proposed for lupus erythematosus. Other causes include a number of hematologic and immunologic abnormalities.[7] Among the various postulated etiologic factors, it is now well established that the syndrome occurs in patients with various psychiatric disorders such as depression, anxiety, difficulties in handling aggression, or obsessive compulsive disorder, among others.[8]

Agle and Ratnoff[2] described prominent features of conversion disorder and histrionic personality disorder, as well as sadomasochistic relationships, with frank abuse by significant others. Abnormal fibrin degradation and platelet dysfunction have been proposed as the underlying stress-related bruising tendencies. The associated complaints in such patients also include neurological and ocular symptoms, hemorrhagic manifestations, menorrhagia, and a varied symptomatology.[9]

Although our patient had only depressive features there were no neurological or haemorrhagic abnormalities were observed. The dramatic response to antidepressants which also helped in the resolution of the bruising episodes shows the association between the psyche and skin. Researchers have tried to establish the pathways by which stress and emotion affect the nervous system, immune system, and hormonal system and their subsequent effects on inflammation and autonomic functioning and on the skin.[10] Stress can induce or exacerbate anxiety disorders or depression in susceptible individuals. Around 30% of patients with skin disorders are reported to have psychiatric disorders and psychosocial impairments and vice versa.[11] The rapidly developing science of psychoimmunology has revealed the intricacies of the neuroimmunocutaneous endocrine network, which stands as the latest rigid etiological hypothesis and therefore could explain the response of anxiolytics and antidepressant medication in these patients.[12,13] Selective serotonin reuptake inhibitors exert their effect through antihistaminic, anticholinergic, and serotonin blocking properties and this could have led to improvement in our patient's symptoms.

An increased awareness about psychocutaneous disorders and a team approach to treatment often lead to improved patient outcomes as seen in our case. However, psychodermatology clinics, training

opportunities for physicians and residents in psychiatry and dermatology residency programs, and family education are some of the important methods to improve better understanding and management of psychocutaneous disorders.

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How to cite this article: Sawant NS, Singh DA. Antidepressant-induced Remission of Gardner Diamond Syndrome. Indian J Psychol Med 2012;34:388-90.

Source of Support: Nil, **Conflict of Interest:** None.