Bullous Pemphigoid in a Renal Transplant Recipient, A Case Report and Review of the Literature

Fatemeh Mohaghegh, Roghaye Sadat Khalili Tembi

Skin Diseases and Leishmaniasis Research Center and Department of Dermatology, Isfahan Medical School, Isfahan University School of Medicine, Isfahan, Iran

Keywords. bullous pemphigoid, renal transplant, autoimmune disease

Bullous pemphigoid (BP) is an autoimmune disease with chronic, recurrent bullous eruptions. BP has been reported to be associated with drugs, physical stimuli, malignancies, and immune abnormalities. Its association with renal transplant is rare and only 12 cases have been reported until now. We present a case of BP in a 33-year-old man with history of bladder exstrophy from birth and renal transplantation from 5 years ago. There was no finding in favour of his disease was caused by graft rejection, drug usage, or viral infection. Therefore, BP could be an accidental finding in this patient with idiopathic aetiology.

IJKD 2020;14:415-7
www.ijkd.org

INTRODUCTION

Bullous pemphigoid (BP) is a type of autoimmune bullous disease with recurrent cutaneous bullous lesions that mainly occurs in the elderly. The aetiology of this disease could be idiopathic or in association with medications, physical stimuli such as radiation therapy and etc. The occurrence of bullous pemphigoid in renal transplanted patients is not common[1] and only a few cases have been reported so far.[2-12] In the present study, we reported a case of BP in a renal transplant recipient and reviewed its relevant literature.

CASE REPORT

A 33-year-old man visited in our dermatology clinic with generalized pruritic skin papules, vesicles, targetoid lesions, urticarial plaques, and erosions from one month ago (Figure 1). He was known case of chronic renal failure due to bladder exstrophy and had undergone renal transplantation 5 years ago, thus he was receiving prednisolone 5 mg/d and cyclosporine 50 mg/BID.

In our clinic, a skin biopsy was taken from the trunk lesions and histologic examination of the biopsy specimen revealed subepidermal blister, whose lumen contained eosinophil (Figure 2). There were numerous eosinophils in the upper dermis around blood vessels (Figure 3). Antibodies against BP180 and BP230 antigens were detected in the patient's serum. Therefore, the diagnosis of BP was made, and systemic corticosteroid (prednisolone 50 mg /d) was prescribed.

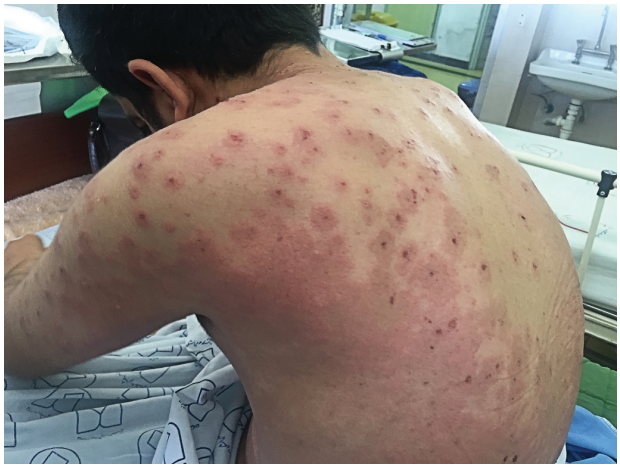

Figure 1. It shows a 33-year-old man with generalized pruritic skin papules, vesicles, targetoid lesions, urticarial plaques, and erosions.

DISCUSSION

The occurrence of BP in renal transplant patients is rare. We summarized clinical characteristics of

Case Report

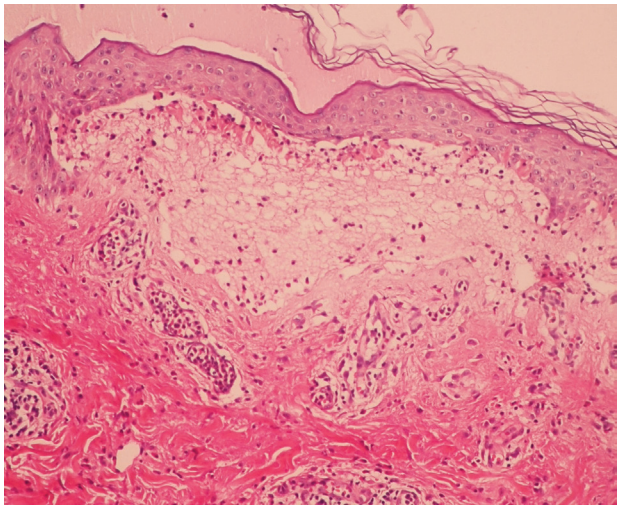

Figure 2. A skin biopsy was taken from the trunk lesions and histologic examination of the biopsy specimen. This figure reveals sub-epidermal blister, whose lumen contained eosinophil.

previously reported cases in Table. Patients are from different age groups while in some cases renal function was normal initially, most of the patients had chronic rejection with poor renal function.[2-5,7-10] All of the patients had various degrees of response to systemic corticosteroids.

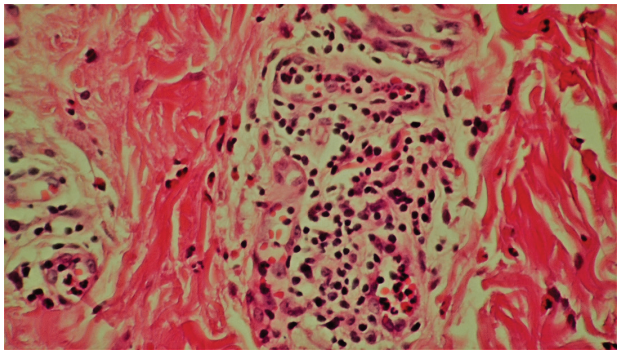

Figure 3. It demonstrates numerous eosinophils in the upper dermis around blood vessels.

Various aetiologies has been described for this condition such as immunological activity within the graft[2-10] (some studies hypothesized immune cross-reactivity between the skin and donated kidney,[13-7] drug-association (M-TOR inhibitors),[11] autoimmunity induced by viral infections (HCV and HBV).[10] Occurrence of BP also has been reported in association with an acute kidney injury.[12] In our patient, renal function was normal and remained so after six-month follow up.no suspicious drug was found and there was no acute or chronic viral infection. The skin lesions' response to systemic

Published cases of bullous pemphigoid associated with renal transplant

Reference, Year	Age (y) /sex	Associated Disease	Rejection	Interval (y)	Treatment
Freehally et al.,[2] 1982	10/F	Chronic Pyelonephritis Cytomegalovirus After Transplant	Chronic (Poor Renal Function with H/D)	2	Corticosteroid , Graft Nephrectomy
Yamazaki et al.,[3] 1998	9/M	Crescentic Glomerulonephritis	Chronic (Poor Renal Function with P/D)	5	Corticosteroid , Graft Atrophy
Morelli and Weston,[4] 1999	15/F	Hereditary Cystinosis	Chronic (Poor Renal Function with H/D)	3 (7 mo)	Prednisone 50 mg/d for 2 weeks, then Tapered Gradually
Tessari et al.,[5] 2002	47/F	Mesangial Glomerulonephritis	Chronic (Poor Renal Function with H/D)	15	Oral Methylprednisolone 12 mg/d, Graft Nephrectomy
Yang et al.,[6] 2009	52/M	Chinese Herbal Nephropathy Hepatitis B and C	Chronic (Normal Initially with Gradual Deterioration Acute	13	Corticosteroid, Plasmapheresis
Sofi,Aijaz A et al.,[7] 2010	46/M	Diabetes Mellitus Blood Hypertention, HCV	Chronic	8	High Dose of Steroid, Mycophenolate Mofetil
Clara Rodrıguez-Caruncho et al.,[8] 2011	39/M	Schistosomiasis	Chronic	3	Corticosteroid, Graft Nephrectomy
Suzanne devaux et al.,[9] 2011	50/M	Uraemic Hematolytic Syndrome	Chronic	6	Dapsone , Corticosteroid, Graft Nephrectomy
Juliano peruzzo et al.,[10] 2013	28/F	Mesangial Glomerulonephritis	—	10	Azathioprine, Prednisolone
L. Atzor et al.,[11] 2014	35/F	MTOR-inhibitors	—	6 mo	Corticosteroid , Decrease Dose of Everolimus
L. Atzor et al.,[11] 2014	65/M	MTOR-inhibitors	Acute	10	Corticosteroid , Cessation of Sirolimus
Abhilash Koratala et al.,[12] 2018	63/M	Membranous Nephropathy		5	Corticosteroid

corticosteroid was excellent and the drug was tapered over time.

CONCLUSION

There was no finding that suggests the patient's disease was caused by graft rejection, drug or viral infection. Therefore, BP maybe an accidental finding in this patient.

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Correspondence to:
Roghaye Sadat Khalili Tembi, MD
Resident of Dermatology, Skin Diseases and Leishmaniasis Research Center and Department of Dermatology, Isfahan medical school, Isfahan University School of Medicine, Isfahan, Iran
E-mail: roghaye.khalili1367@gmail.com

Received: March 2020
Revised: June 2020
Accepted: August 2020