AUTOIMMUNE BULLOUS DISEASES

DIABETES MELLITUS AND HYPERGLYCEMIC COMPLICATIONS IN BULLOUS PEMPHIGOID

Zt Chai [1] - C Tan [2] - Mq Liau [3] - Sm Pang [1] - Yw Phoon [4] - Ns Chandran [3] - Hy Lee [1]

Singhealth, Department Of Dermatology, Singapore General Hospital, Singapore, Singapore [1] - Singhealth, Dermatology Service, Kk Women's And Children's Hospital, Singapore, Singapore [2] - University Medicine Cluster, Division Of Dermatology, National University Hospital, Singapore, Singapore [3] - Singhealth, Department Of Dermatology, Sengkang General Hospital, Singapore, Singapore [4]

Introduction: Bullous pemphigoid (BP) is an autoimmune sub-epidermal blistering dermatosis usually affecting elderly of age 75 years or older. It is associated with multi-morbidity, and 2 to 3 times higher mortality risk than age-matched controls. Systemic steroids are recommended first line treatments, however are known to cause metabolic side effects including osteoporosis and diabetes.

Objective: To study the extent and characterization of hyperglycemic complications, and the associated risk factors for their development in BP.

Methods: We retrospectively reviewed 153 patients diagnosed with BP in 2 tertiary hospitals over an 11-year period (2005-2016). Patient demographics, co-morbidities, treatment regimens for BP, hyperglycemic complications after initiation of treatment for BP, and 1-year mortality were reviewed. Hyperglycemic complications were a priori defined as i) New onset diabetes mellitus (DM), ii) Worsening glycemic control in pre-existing diabetics, iii) Pre-existing diabetics requiring step-up in medication for DM, and iv) Hyperglycemic crises

Results: Among 60 patients (39.2%) who developed hyperglycaemic complications, 7 patients (4.6%) developed hyperglycaemic crisis, and 9 patients (5.9%) were newly diagnosed DM. Thirty-nine patients (25.5%) had hospital admissions whereby hyperglycaemia were primary or secondary admission diagnoses. The onset of hyperglycaemic complications occurred at mean duration of 1.3 months. Existing DM, hypertension, hyperlipidaemia and chronic renal failure were found to be significant risk factors for developing hyperglycaemic complications with relative risk of 9.35 ($p<0.001$), 2.59 ($p=0.002$), 1.58 ($p=0.039$) and 1.96 ($p=0.005$) respectively. One-year mortality was higher in patients who developed hyperglycaemic complications (RR 1.64, $p=0.041$). All newly diagnosed DM patients received systemic steroids, and none of them had treatment with adjuvant therapy or topical corticosteroids alone.

Conclusion: Hyperglycemic complications are common in BP patients and can be potentially life-threatening. Discretionary prescription of systemic corticosteroids, regular blood glucose monitoring, early initiation of DM treatment and shared care with endocrinologist is crucial in prevention of hyperglycemic complications.