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**Abstract**

**Comorbidities of Hospitalized Pemphigus Patients in the United States**

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**Dermatology Online Journal 22 (9)**

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We sought to determine the comorbid health conditions and inpatient mortality associated with pemphigus in a U.S. inpatient cohort. The 2002-2012 Nationwide Inpatient Sample, which contains a representative 20% stratified sample of all inpatient hospitalizations in the US, was analyzed. Comorbidities were determined through ICD-9-CM codes. Survey weighted multivariate logistic regression models controlling for demographic factors were constructed to determine the association of pemphigus with various comorbidities. Multivariate logistic regression models controlling for socio- demographic factors were constructed to determine predictors of mortality.

Of 87,039,711 hospital discharges captured in the NIS between 2002-2012, there were 1,185 and 5,221 admissions with a primary or secondary diagnosis of pemphigus. The comorbid health conditions most strongly associated with pemphigus were Cushing syndrome (17.23 [2.41-122.90]), adrenal insufficiency (4.08 [1.71-9.73]), myasthenia gravis (6.92 [2.55-18.79]), fungal infections (4.03 [3.60-4.52]), insomnia (18.02 [2.46-131.88]), leukemia (1.56 [1.08-2.24]), non-Hodgkin's lymphoma (1.52 [1.15-2.03]), and diabetes mellitus (1.30 [1.20-1.40]). Mean mortality for patients with a primary or secondary diagnosis of pemphigus was 1.70% [1.29-1.91] and 3.20% [2.71-3.69], respectively, while patients without a diagnosis of pemphigus had a mean mortality of 1.78% [1.78-1.78]. Predictors of mortality included Asian race, Medicare or Medicaid insurance status, and increasing number of chronic conditions. The present study found significantly higher odds of comorbidities in US children and adults with pemphigus, including infections, autoimmune, malignancy, cardiovascular and endocrine disorders. Patients with pemphigus have higher rates of mortality and necessitate meticulous care given the associations with a wide array of comorbid health conditions.