burden. Improving the control of PD motor symptoms on patients may contribute to prevent anxiety and HRQoL deterioration in caregivers.

PND4
A COMPREHENSIVE LITERATURE REVIEW OF THE BURDEN OF GAUCHER DISEASE

Naloyonk I, Hamed A, Hurwitz GJ, Simeone J, Rotella P2

1Genzyme, a Sanofi Company, Cambridge, MA, USA, 2Tufts-New England, Lexington, MA, USA

OBJECTIVES: Gaucher disease (GD) is a rare, lysosomal storage disorder caused by a genetic deficiency of glucocerebrosidase. The result is the accumulation of the substrate, glucosylceramide, in the lysosomes of macrophage cells in the liver, spleen, bones, lungs, and other vital tissues. Three subtypes of Gaucher disease are recognized: type 1 (GD1, non-neuropathic), type 2 (GD2, acute neuropathic), and type 3 (GD3, subacute/chronic neuropathic). Clinical manifestations of the disease are multisystemic, clinically heterogeneous and require lifelong management. METHODS: To better understand the prevalence of restless legs syndrome (RLS) and Gaucher disease (GD), several RLS screenings completed the International Restless Legs Syndrome Study Group Rating Scale (IRLS). Screening completed in two hemodialysis units answered a RLS screening test. Those with a positive result were seen by a neurologist. The published literature was conducted. MEDLINE, EMBASE, CENTRAL and “grey” literature sources published in English between January 1990 and February 2013 were searched for relevant publications. RESULTS: A total of 97 publications focusing on the epidemiologic, clinical, and socioeconomic burden of GD, treatment options and guidelines were summarized. The standardized incidence and prevalence of GD in the general population varies from 0.30 to 8.50 per 100,000 and 0.31 to 1.75 per 100,000, respectively, and GD1 is the predominant type in most regions. The risk of mortality is highest in GD patients younger than age 5 years and generally increased after age 55; the life expectancy is lower than the general population. Common manifestations of GD such as anemia, thrombocytopenia, splenomegaly, hepatomegaly and bone disease lead to a diagnosis of GD. Reported complications related to GD such as bone pain, anemia, infections and cancer. Current treatment options consist of enzyme replacement therapy (ERT; standard of care) and substrate reduction therapy (SRT). ERT is the standard of care, though unmet needs exist and further research is needed in this area. While ERT is an effective and well-established treatment for GD patients, several RLS screening was conducted with IRLS. A total of 2,142 patients were diagnosed with CF among the Medicaid FFS population under age 45 years in 2008 and 2009. Prevalence was the highest (0.17%) for patients under age 17 years, followed by those age 18-35 (0.14%), and 36-45 years (0.06%). However, some states had the highest CF prevalence in the 18-35 age range (Colorado: 0.92%; North Dakota: 0.50%; Kentucky: 0.54%). CF prevalence by race was also examined with the following results: White (0.17%), Hispanic (0.10%), Asian (0.07%), Black (0.06%) and Native American (0.03%). Male patients had a relatively higher prevalence than female patients (0.14% vs. 0.12%). The highest CF prevalence was observed in Colorado (0.65%), followed by Maryland (0.46%). North Dakota (0.31%), Ohio (0.28%) and Pennsylvania (0.27%). Patients residing in the Midwest U. S. had the highest prevalence rate (0.15%), compared to the South (0.15%), Northeast (0.12%) and West (0.04%) regions. CONCLUSIONS: CF prevalence was the highest in patients age <17 years nationwide, however, certain states showed the highest prevalence among patients age 18 to 35. White and male patients residing in the Midwest U. S. were found to be at higher risk of a CF diagnosis.

PND7
PREDICTIVE VALUE OF CEREBROSPINAL FLUID AMYLOID-β1–42 LEVELS FOR DIFFERENTIAL DIAGNOSIS OF ALZHEIMER’S DISEASE - SYSTEMATIC REVIEW AND META-ANALYSIS

Ceballos A, Arenas M.D.

OBJECTIVES: The purpose of this study was to carry out systematic review of the literature and meta-analysis to evaluate the diagnostic utility of cerebrospinal fluid (CSF) levels of the 42 amino acid form of amyloid-b (Ab1–42) as a biomarker for differentiating Alzheimer’s disease (AD) from non-AD dementia. METHODS: Systematic review and meta-analysis of studies reporting quantitative measures of the Ab for diagnosis of Alzheimer’s disease. The Scottish Intercollegiate Guideline Development Network (SIGN) tool was used by two evaluators to evaluate independently the quality of the 15 studies. Data sources - The literature review covered from October 27, 1946, to October 22, 2013, and searched eight domestic databases including Korea Med and international databases including OVID-MEDLINE, EMBASE, and Cochrane Library. Eligibility criteria for selecting studies - Primary criteria for inclusion were valid studies reporting CSF Ab1–42 levels as diagnostic measure of AD. The screening test had in this sample a sensitivity of 100%, specificity 66 43% and positive predictive value 31.88%. CONCLUSIONS: This study found RLS is a relatively common condition in hemodialysis patients. The screening test showed a high sensitivity to detect RLS, but very low specificity, so the confirmation of an RLS diagnosis is strongly recommended. Natalizumab patients were significantly less likely to have MS relapse post-index (26.5% vs. 35.5%, p <0.001), with lower post-index rates of MS-related IP admissions (1.0% vs. 2.6%), IV corticosteroid use (15.6% vs. 19.0%) and oral corticosteroid use (15.4% vs. 23.1%) (all p<0.01). Natalizumab patients had a shorter relapse-free period (308 vs. 283 days, p<0.001). Post-index MS-relapse rate was lower for natalizumab patients (HR=0.69, p<0.001) after controlling for baseline characteristics. CONCLUSIONS: Natalizumab was associated with a significantly lower risk and rate of MS-relapse and had longer time to a MS-relapse compared to platform therapy.