

**[3295] Retrospective Matched Cohort Study of Immune Thrombocytopenic Purpura (ITP): Complications Related to Corticosteroid (CS) Use. Session Type: Poster Session, Board #524-III**

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Introduction: ITP is a serious, chronic platelet production/destruction disorder frequently treated with CS (with a 50-70% response rate). While CS-associated adverse events are known to impair health-related quality of life, other disease complications have not been well studied in ITP patients (pts). Methods: A retrospective claims analysis used the PharMetrics Integrated Medical and Pharmaceutical Database (diagnosis, treatment, and claims data from >45 million managed care pts) to compare risks of disease complications in ITP pts (primary thrombocytopenia, ICD-9=287.3 [n=2454; 618 used CS; 1,836 did not]) and age- and gender-matched non-ITP controls (n= 21,196; 2,861 used CS; 18,335 did not) enrolled from July 2000 to December 2003. Incidence (new events during study period/persons exposed to risk) of osteoporosis, diabetes mellitus (DM), fractures, anxiety/depression, hepatitis C, myocardial infarction (MI), gastrointestinal (GI) bleeds, hypertension (HTN), obesity, atrial fibrillation, pancreatitis, cataracts, and stroke were compared between the 2 cohorts through December 2004. Descriptive statistics and univariate and multivariate logistic regression models assessed CS use by 4 measures (number of treatments, average daily dose, days of therapy, continuous duration). Clinical complexity was measured by the Charlson Comorbidity Index. Results: The most common events in ITP pts were HTN, anxiety/depression, DM, osteoporosis, obesity, cataracts, and MI (range, 26 [MI] to 237 [HTN] per 1,000 patient-years). These events were common but less frequent in non-ITP pts. ITP pts had significantly more CS use than non-ITP pts (by 4 treatment measures; all  $P<0.0001$ ). In ITP pts, incidences of DM, obesity, and GI bleeds (59 vs 30, 42 vs 20, and 16 vs 7/1,000 person-years, respectively) were twice as high in CS users as in nonusers. MIs (20 vs 6/1,000 person-years) were 3 times higher in CS users. Events increased in ITP CS users with number of CS treatments, suggesting a 'dose-response' relationship. A similar but less pronounced trend occurred in CS users without ITP. ITP pts receiving >4 CS doses had increased risks of most events (greatest for DM, obesity, and MI; less for osteoporosis, HTN, and depression). Event risk in non-ITP pts did not increase significantly with number of CS prescriptions. Each additional day of CS therapy was associated with a 0.5% increase in risk of osteoporosis, HTN, DM, and anxiety/depression in ITP pts.

Osteoporosis, DM, and HTN were more than twice as likely to develop in ITP pts receiving  $\geq 60$  days of CS therapy vs those treated for <60 days. In non-ITP pts, days of therapy and event incidence were unrelated. Logistic regression modeling in the ITP population showed that each additional CS treatment carried a 14% increase in the risk of osteoporosis and MI; a 12% increase in the risk of DM and HTN; an 11% increase in the risk of obesity; and a 7% increase in the risk of anxiety/depression (for which non-ITP pts also showed an association). Conclusions: Based on this analysis, ITP pts are at greater complication risk than age- and gender-matched non-ITP pts. CS treatment is consistently associated with increased risks of osteoporosis, DM, and HTN in ITP pts, suggesting added caution regarding CS use. A CS dose-response relationship with event risk is evident in ITP and non-ITP pts. Additional analyses are planned using other data sources to confirm these findings.

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**Poster Session: Health Services and Outcomes Research: Coagulation (10:30 AM-7:00 PM)**