Racial Differences in Use of Biologics for Crohn’s Disease in a Medicaid Population

Introduction Immunomodulator (IMM) and biologic (anti-TNF) use in African Americans (AA) with Crohn’s disease (CD) has been reported to be lower than in white patients (W); few data exist for Hispanic patients (H). We assessed racial differences in initiation of anti-TNF agents for patients with CD using Medicaid data.

Methods Medicaid databases from Florida, Kansas and New Jersey were examined to identify all patients with CD (≥2 encounters with ICD-9 for CD) from August 1998 to March 2009. CD-related treatment (antibiotics, steroids, aminosalicylates, IMMs and anti-TNF agents), CD-related medical comorbidities, CD location, CD behaviour, surgery, and healthcare utilisation were assessed from CD diagnosis until the first anti-TNF claim or end of claims. Cox proportional-hazards model was used to assess the effect of race on odds of anti-TNF agent initiation.

Results We identified 8105 patients with CD; 7284 had race data (4602 W; 1219 AA; 663 H; 800 other). Of these, 22% W, 24% AA, 25% H and 29% of other patients were excluded owing to an ICD-9 code for ulcerative colitis, yielding a total of 5575 patients with CD (3590 W; 924 AA; 494 H; 567 other) for analysis. 18%, 17% and 17% of W, AA and H patients started IMMs after a CD diagnosis (p=not significant). 7%, 9% and 5% of W, AA and H patients initiated anti-TNF agents after a CD diagnosis (p=not significant). After adjusting for CD-related medications, comorbidities and demography, the Cox model did not reveal an association between AA patients and odds of biologic use compared with W patients (HR 1.20, 95% CI 0.93–1.54), nor between H and W patients (HR 0.68, 95% CI 0.46–1.02). To further adjust for CD severity, we analyzed patients hospitalised after CD diagnosis (n=5428). Anti-TNF treatment was initiated less often in H than W or AA patients (4% vs 8% and 7%, p=0.027 for H vs W). The Cox model showed that H patients were significantly less likely to use anti-TNF agents than W patients (HR 0.39, 95% CI 0.22–0.71). No differences between W and AA patients were found in mean doses of or time to first dose of anti-TNF agents.

Conclusion Initiation of anti-TNF agents was similar in W and AA patients but lower in H patients. Further research is needed to confirm these findings in a commercially insured population because it is possible that anti-TNF agents may be underused among all racial groups in the Medicaid population.


Keywords biologic therapy, Crohn’s disease, race.