Race

A race is a grouping of humans based on shared physical or social qualities into categories generally viewed as distinct by society.

First used to refer to speakers of a common language and then to denote national affiliations, by the 17th century the term race began to refer to physical (phenotypical) traits. Modern scholarship regards race as a social construct, that is, a symbolic identity created to establish some cultural meaning. While partially based on physical similarities within groups, race is not an inherent physical or biological quality.

Cramer et al. sought to determine whether racial and socioeconomic disparity in the utilization of deep brain stimulation (DBS) for Parkinson's disease (PD) have improved over time. They examined DBS utilization and analyzed factors associated with placement of DBS. The odds of DBS placement increased across the study period while White PD patients were 5 times more likely than Black patients to undergo DBS. Individuals, regardless of racial background, with two or more comorbidities were 14 times less likely to undergo DBS. Privately insured patients were 1.6 times more likely to undergo DBS. Despite increasing DBS utilization, significant disparities persist in access to DBS [1].

Race may not have a significant impact on surgical outcomes after elective posterior spine surgery for adolescent idiopathic scoliosis [2]

Black and Hispanic patients are at higher risk of intracerebral hemorrhage recurrence; hypertension severity (average BP and its variability) does not fully account for this finding. Additional studies will be required to further elucidate determinants for this health disparity [3].

In spine surgery, racial disparities have been shown to impact various aspects of surgical care. Previous studies have associated racial disparities with inferior surgical outcomes, including increased complication and 30-day readmission rates after spine surgery.

Patient-reported outcomes (PROs) and satisfaction measures have been proxies for overall quality of care and hospital reimbursements. However, the influence that racial disparities have on short- and long-term PROs and patient satisfaction after spine surgery is relatively unknown.

The aim of a study of Elsamadicy et al., was to investigate the impact of racial disparities on 3- and 12-month PROs and patient satisfaction after elective lumbar spine surgery.

This study was designed as a retrospective analysis of a prospectively maintained database. The medical records of adult (age ≥ 18 years) patients who had undergone elective lumbar spine surgery for spondylolisthesis (grade 1), disc herniation, or stenosis at a major academic institution were included in this study. Patient demographics, comorbidities, postoperative complications, and 30-day readmission rates were collected. Patients had prospectively collected outcome and satisfaction

measures. Patient-reported outcome instruments-Oswestry Disability Index (ODI), visual analog scale for back pain (VAS-BP), and VAS for leg pain (VAS-LP)-were completed before surgery and at 3 and 12 months after surgery, as were patient satisfaction measures. RESULTS The authors identified 345 medical records for 53 (15.4%) African American (AA) patients and 292 (84.6%) white patients. Baseline patient demographics and comorbidities were similar between the two cohorts, with AA patients having a greater body mass index (33.1 ± 6.6 vs 30.2 ± 6.4 kg/m2, p = 0.005) and a higher prevalence of diabetes (35.9% vs 16.1%, p = 0.0008). Surgical indications, operative variables, and postoperative variables were similar between the cohorts. Baseline and follow-up PRO measures were worse in the AA cohort, with patients having a greater baseline ODI (p < 0.0001), VAS-BP score (p = 0.0002), and VAS-LP score (p = 0.0007). However, mean changes from baseline to 3- and 12-month PROs were similar between the cohorts for all measures except the 3-month VAS-BP score (p = 0.046). Patient-reported satisfaction measures at 3 and 12 months demonstrated a significantly lower proportion of AA patients stating that surgery met their expectations (3 months: 47.2% vs 65.5%, p = 0.01; 12 months: 35.7% vs 62.7%, p = 0.007).

The study data suggest that there is a significant difference in the perception of health, pain, and disability between AA and white patients at baseline and short- and long-term follow-ups, which may influence overall patient satisfaction. Further research is necessary to identify patient-specific factors associated with racial disparities that may be influencing outcomes to adequately measure and assess overall PROs and satisfaction after elective lumbar spine surgery [4].

A total of 9950 patients underwent transsphenoidalpituitary surgery; 7122 (72%), 2394 (24%), and 434 (4%) patients were treated at high-volume center, medium-volume, and low-volume centers, respectively. Patient factors associated with treatment at high-volume centers (HVCs) included: top income quartile, private insurance, urban residence, and white or Asian race (p < 0.05). Patient variables associated with treatment at low-volume centers (LVCs) included: age >65 years, elevated Charlson comorbidity index (CCI) scores, bottom income quartile, Medicaid and Medicare insurance, rural residence, black race, and Hispanic ethnicity (p < 0.05). Variables predictive of prolonged hospitalizations in our multivariable model included black race, Hispanic ethnicity, Medicaid insurance, low income, female gender, LVC, and comorbidities (panhypopituitarism, hypothyroidism, diabetes insipidus [DI], visual disturbances, CCI) while predictors of readmissions included Asian race, female gender, and comorbidities (Cushing syndrome, DI, CCI) [5].

Studies have shown an increased risk of traumatic brain injury (TBI) for individuals who suffer an initial TBI.

A study of Hayward et al., St. John Hospital & Medical Center, Detroit, Michigan, USA hypothesized that individuals with recurrent neurotrauma would originate from populations considered 'vulnerable', i.e. low income and/or with neuropsychiatric disorders.

Data from the Michigan State Inpatient Database from 2006 to 2014 for the Detroit metropolitan area enlisted a study population of 50 744 patients with neurotrauma. Binary logistic regression was used to assess risk factors associated with admission for subsequent neurotrauma compared with single neurotrauma admission.

Patients with repeated neurotrauma admissions were similar to those with one-time trauma in terms of age at first admission and neighbourhood income levels. However, patients with repeated neurotrauma admissions were more likely to be male (p < .001) and African-American (p < .001).

Comorbid alcohol use and drug use were 39% and 15% less likely to be readmitted with neurotrauma, respectively. Comorbid conditions associated with greater risk of repeat neurotrauma included depression, psychosis, and neurological disorders, increasing risk by 38%, 22%, and 58%, respectively.

This study validated the hypothesis that comorbid psychiatric conditions are a significant risk factor for recurrent neurotrauma and validate prior studies showing gender and race as significant risk factors. [6].

The junction of the transverse sinus with the sigmoid sinus can differ up to 0.5 cm in the craniocaudal axis depending on race. As neuronavigation is not standard to the approach to the cerebellopontine angle, the study aimed to provide the neurosurgeon operating in the retrosigmoid area additional knowledge to avoid sinus injury with subsequent complications, such as blood loss, sinus occlusion, or air embolism [7].

References

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