P.020

Shifts in daytime functioning items on the insomnia severity scale with lemborexant after 6 months of treatment

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Background: Improvements in daytime functioning ideally accompany improvements in insomnia. Scores on the Insomnia Severity Index (ISI) daytime-related items were analyzed following treatment with lemborexant (LEM), a dual orexin receptor antagonist, or placebo (PBO), based on baseline severity. Methods: Participants (≥18 y) with insomnia disorder in E2006-G000-303, a 12-month, randomized, double-blind, PBO-controlled study (first 6 months: Treatment Period 1 [TP1]), were randomized to PBO or LEM 5 mg (LEM5) or 10 mg (LEM10) for 6 months. ISI items are rated 0 (no problem) to 4 (very severe problem); daytime-related ISI items have a maximum score of 16. Results: Of 949 participants, 749 (78.9%) completed the ISI at baseline and end of TP1. Baseline daytime ISI total score distributions were similar between groups. More participants with baseline scores of 9-12 and 13-16 shifted to 0-4 with LEM5 (49.7% and 39.1%, respectively) and LEM10 (46.2% and 46.3%) versus PBO (26.6% and 29.6%). Overall shift distributions were significantly different, favoring both LEM groups ($P<0.01$). LEM was well tolerated. Conclusions: More LEM-treated participants had improved daytime functioning, evidenced by the significantly larger number of participants whose scores moved into lower categories (ie, better sleep) versus PBO-treated participants, demonstrating additional value beyond improved sleep parameters.

P.021

Nonclinical studies of abuse potential with dual orexin-receptor antagonists: concordance with real-world use

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Background: Traditional insomnia drugs enhance gamma-aminobutyric acid and are associated with abuse/dependence. Dual orexin-receptor antagonists (DORAs) represent an alternate mechanism promoting wakefulness, rather than inhibition. Nonclinical studies indicate DORAs do not demonstrate abuse potential. Nonetheless, based on human abuse potential (HAP) studies and lack of postmarketing data at approval, DORAs are Schedule 4 controlled substances. However, HAP studies may not predict real-world abuse-potential risk. Methods: Adverse events with preferred terms (PTs) of drug-withdrawal-syndrome, drug-abuse, and drug-dependence were evaluated from Eisai's ongoing global postmarketing safety surveillance system in the US, Canada, and Japan (20/Dec/2019–30/Sep/2023) and the FDA Adverse Event Reporting System (FAERS; 01/Jan/2015–30/Jun/2023). In FAERS, reports of those PTs from DORAs (lemborexant/suvorexant/daridorexant) were compared with zolpidem and with benzodiazepines approved for patients with insomnia (estazolam/temazepam/triazolam). Results: Since lemborexant's approval, few of the 3 PTs were reported in Eisai's surveillance system (~0.15 cases per million patient-days of global exposure). Reports in FAERS for PTs of drug-withdrawal-syndrome, drug-abuse, and drug-dependence for DORAs (10,202 reports) were <0.1%/<0.1%/0.1%, respectively. Reports for benzodiazepines (5534 reports) were 0.8%/12.9%/3.7%, respectively, and 1.0%/9.1%/5.3% for zolpidem (18,330 reports), respectively. Conclusions: Abuse potential may be better represented by nonclinical studies and national surveillance systems, suggesting DORAs may not pose meaningful abuse potential and related risks.

Other Multidisciplinary

P.022

Gender disparity in canadian institutes of health research funding within neurology

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Background: Despite efforts to advance equity, women face gender-based barriers in research, including fewer senior authorship and grant opportunities. We examined gender disparities in Canadian Institutes of Health Research (CIHR) funding for Canadian neurology divisions and departments. Methods: Data on CIHR grant recipients and metrics (duration, quantity, and contribution) within Canadian neurology divisions and departments (2008-2022) were acquired from the CIHR Funding Decisions Database. Gender-based differences in grant prevalence, duration, and contribution amount within neurology were calculated with subgroup analysis for Canadian neurologists and Project Grant awards. Results: 1604 grants were awarded to Canadian neurology divisions and departments between 2008-2022. Women received fewer grants (41.46%), less funding ($p<0.0001$), and shorter grant durations ($p<0.0001$) than men annually. Women comprised the minority of recipients (45.47%) and were less likely to be awarded grants ($p<0.001$) annually relative to men. Differences were consistent in subgroup analyses, except grant durations were equal across genders in Project Grant awards. Conclusions: Gender disparities persist in CIHR grant funding to Canadian neurology divisions and departments. Women receive fewer grants, lower contribution amounts, and are less likely to be recipients compared to men. Future work includes addressing gender differences and continuing to evaluate CIHR funding to provide equitable opportunities for women.