High Rates of Psychiatric Comorbidity in Narcolepsy: Findings from the Burden of Narcolepsy Disease (BOND) Study of 9,312 Patients in the United States

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BACKGROUND

- Narcolepsy is a treatable condition characterized by profound excessive daytime sleepiness commonly presenting as tiredness and/or fatigue.
- Psychiatric conditions historically associated with narcolepsy include depression, anxiety, and schizophrenia.1-3
- We accessed a medical claims database of 7.1 million continuously insured persons (2006 to 2010) to evaluate psychiatric comorbidity in narcolepsy.

OBJECTIVE

- To characterize psychiatric comorbidity in narcolepsy

METHODS

Subject selection

- Truven Health Analytics MarketScan® Research Databases
- Patients ≥18 years of age with at least one diagnosis code for narcolepsy = cataplexy*
- Controls without narcolepsy matched 5:1 on age, sex, region, and payer
- Extensive subgroup analyses validated the population (see handout)

Analysis

- Psychiatric comorbid condition prevalence evaluated in:
  - Narcolepsy vs matched controls
  - Narcolepsy with and without cataplexy
  - Men and women
- Comorbidity prevalence measured using CCS4 level 1 (CCSM) categories
- Psychiatric medication use, narcolepsy vs matched controls
- Annualized health plan costs, narcolepsy vs matched controls

RESULTS

Study Population

- 55,871 subjects
  - 9,312 narcolepsy (20.3% with cataplexy; 59.2% women)
  - 46,559 matched controls
  - Mean (SD) age, 46.1 (13.3) years; range 18-93 years

Psychiatric Comorbidity: Narcolepsy vs. Controls

- Depressive and anxiety disorders demonstrated the greatest excess prevalence (Figure 1).
- All Mental Illness categories were more prevalent (Table 1).
- The excess prevalence of comorbid mental illness was independent of cataplexy status and occurred in both men and women (data not shown).

Psychiatric Medication Usage and Specialist Utilization: Narcolepsy vs. Controls

- Psychiatric medication usage was significantly higher (Figure 2).
- Psychiatric medication usage was similar among patients with and without cataplexy (data not shown).
- Psychiatry office visits were more frequent (0.53 visits/patient/year vs 0.12 visits/patient/year).
- Costs for mental illness-related services were higher ($314/patient/year vs $85/patient/year).

CONCLUSIONS

- High rates of depression and anxiety were seen among patients with narcolepsy.
- These findings may help explain the frequent misdiagnosis of narcolepsy and long diagnostic delays (≥10 years) reported elsewhere.4,7
- Narcolepsy should be included in the differential diagnosis of mood and anxiety disorders, particularly in patients with fatigue or daytime sleepiness and in those unresponsive to standard treatment.

REFERENCES

1. Chervin RD. Narcolepsy is complicated by high medical and psychiatric comorbidity: a comparison with the general population. Sleep Med 2013;14:488-492.

ABSTRACT

OBJECTIVE: To evaluate psychiatric comorbidity patterns in narcolepsy patients in the United States.

BACKGROUND: While narcolepsy is known to be associated with medical comorbidity, the burden of concomitant psychiatric illness in this population has not been well characterized.

DESIGN/METHODS: Truven Health Analytics MarketScan® Research Databases were accessed to identify individuals ≥18 years of age with at least one diagnosis code for narcolepsy = cataplexy (ICD9 347.0, 347.00, 347.01, 347.1, 347.10, or 347.11) continuously insured between 2006 and 2010, and controls without narcolepsy matched 5:1 on age, sex, region, and payer. Extensive subgroup analyses were conducted to control the validity of narcolepsy definitions. Narcolepsy and control patients were compared for frequencies of psychiatric comorbid conditions, identified by the appearance of ≥1 psychiatric diagnosis code(s) required in a Clinical Classification System (CCS) level 2 category any time during the study period, and for specific subcategories. Patients with psychiatric comorbidity were also classified.

RESULTS: The final population included 9,312 narcolepsy subjects and 46,559 controls (each group, average age of 46.1 years and 59% female). The CCS categories of anxiety disorders and mood disorders appeared at significantly higher rates in narcolepsy vs controls (all p<0.0001).

CONCLUSIONS: Narcolepsy is associated with significant comorbid psychiatric illness burden and a higher rate of psychiatric medication usage compared to the non-narcolepsy population.