High Rates of Medical 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.
- While various medical comorbidities have been reported to be associated with narcolepsy in case series and smaller studies, the full scope of concomitant illness in this population has not been well characterized.
- We accessed a medical claims database of 7.1 million continuously insured persons (2006 to 2010) to evaluate medical comorbidity in narcolepsy.

OBJECTIVE

To characterize medical comorbidity in patients with 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

- Comorbidity prevalence (1 or more occurrences during study period), narcolepsy versus controls
  - CCS level 1 (CCSM®) categories
  - Targeted diagnoses (previously associated with narcolepsy)
- Selected diagnoses and procedures supported by objective criteria (e.g., confirmatory laboratory and/or diagnostic testing)

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

Comorbidity Patterns

- Narcolepsy patients versus controls:
  - All CCSM categories were more prevalent (p<0.0001), except perinatal conditions and complications of pregnancy and childbirth (p=NS) (Figure 1).
  - All targeted diagnoses were more prevalent (p<0.0001) (Figure 2).
  - Select diagnoses/procedures supported by objective criteria were more frequent (all p<0.02) (Table 1).

CONCLUSIONS

- Narcolepsy is associated with a surprising range and significantly high rate of comorbid medical illnesses.
- The consistency across objectively measured conditions (e.g., renal failure, cardiac arrest) and more symptomatic conditions (e.g., headache) suggests that observed comorbidity patterns cannot be attributed primarily to care-seeking behavior.
- The potential presence of narcolepsy and other sleep disorders should be investigated in patients who present with other conditions and have sleep-related complaints to facilitate earlier diagnosis and treatment.
- Narcolepsy patients should be evaluated regularly for comorbid illnesses.

REFERENCES


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