

The Mortality of Behcet's Disease

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As medical directors, we often receive referrals for an underwriting opinion on rare and unusual diseases. This necessitates time-consuming medical literature searches and analyzing studies for appropriate mortality data. Behcet's disease (BD) belongs in this category. Although this review article does not have all the elements of a typical mortality abstract, with a rare disease such as BD, we must rely on the available literature.

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The objective of this article is to provide a mortality estimate for Behcet's disease (BD) and underwriting suggestions based on a recent publication.¹ BD was named after Hulusi Behcet, a Turkish dermatologist who described the disease in 1937. It is often called the Old Silk Road Disease as it was most common across East Asia and the Mediterranean basin between the latitudes of 30 and 45 degrees, the approximate geographic location of the ancient Old Silk Road.

Behcet's is an autoinflammatory disease of unknown etiology. It affects the eyes with recurrent uveitis, skin of the mouth and genitals with ulcers, and large and small arteries and veins with thrombotic and occlusive vasculitis. Arthritis is common. The severity often abates with advancing age. Its clinical course is wax and waning. Treatment includes corticosteroids, colchicine, and immunosuppressives.

STUDY POPULATION

The data was obtained from the Korea National Health Insurance Service Database

2002–2020 to investigate the all-cause and cause-specific mortality in subjects with BD vs the general population.

STATISTICAL ANALYSIS

Unfortunately, the authors did not illustrate the observed and expected mortality curves in the article. However, they presented 2 calculated mortality hazard ratios. A mortality hazard ratio is defined as the probability of a mortality event in one group compared to a control group over a period of time. The average observation period was 11.9 years.

RESULTS

Over the study interval, the population with BD had a mortality hazard ratio of 1.28. The risk of mortality was highest in the first 12 months post diagnosis with a ratio of 2.66. Major causes of death were malignancy, cardiovascular, gastrointestinal (viscus rupture), respiratory, and infections. Higher mortality was noted in younger patients.

DISCUSSION

Mortality studies on BD are scarce due to the paucity of affected individuals in a population. This publication has several deficiencies to be considered a classical mortality analysis. The study does not present the population number and affected patients, their sex/age demographics, and as noted previously, the actual curves.

The Korean general population is not analogous to the United States insurance buying population. General populations have an increased expected mortality compared to a select insurance-buying population.

A mortality ratio is the quotient of observed deaths divided by expected deaths. A denominator (expected deaths) based on the general population underestimates the mortality of a disease compared to an insurance-select population. Thus, the mortality hazard ratios presented in this article

are lower than the US insurance-buying population.

CONCLUSIONS

When underwriting BD, postponement for at least the first year may be appropriate. If the general Korean population has a mortality ratio of 1.28 or 28% greater than the expected 100%, the ratio for a select population must be higher. How much higher is related to your company's select life expectancy tables. Applicants with BD do not appear to be standard risks but in the low to moderate substandard class depending on the clinical course. Since BD is primarily a disease of morbidity, offering a waiver of premium for a disability rider may not be advisable.

REFERENCE

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