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Morbidity rate and medical utilization of chronic prostatitis -population based study

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Hypothesis / aims of study

Chronic prostatitis (CP) is a chronic disease that affects men of all ages. It impacts the quality of life and associated with substantial cost. Previous studies estimated the morbidity of CP in men using various methods. Most of these studies are limited by the study samples from limited geographic regions and there are no nationwide morbidity estimates of CP in men in Taiwan. This study aim to calculate the morbidity rate and medical utilization of CP over 12 years using a nationwide database for the purpose of developing clinical and health policies.

Materials and methods

This was a retrospective cohort study of the Longitudinal Health Insurance Database 2010 with new diagnoses of CP (ICD-9 code 601.1) from 2002 through 2013. The morbidity rate (including incidence and prevalence) was adjusted for age and calendar date using density methods. Moreover, medical utilization and overlap of benign prostatic hyperplasia (BPH) during the study period were measured. Definition of morbidity rate as follows:
Incidence = Number of new CP cases each year ÷ Number of people observed in the population each year
Period prevalence = Number of patients that occurred within two years ÷ Number of people observed in the population within two years

Figure 2. Your caption to go here

RESULTS

It was observed that the incidence of CP was 27.9/100,000 in 2002 and 49.6/100,000 in 2013. The prevalence of CP was 48.1/100,000 in 2003 and 90.6/100,000 in 2013 (Fig 1). In 2002, the incidence was 102.0/100,000, 47.9/100,000, and 11.0/100,000 in ages above 65, 40-65 and under 40 years, respectively. The prevalence in 2003 was 175.7/100,000, 75.8/100,000, and 20.3/100,000 in ages above 65, 40-65 and under 40 years, respectively (Fig 2). This pattern was similar until 2013. There are 33%, 50% and 17% of incident (yearly new) CP cases aged above 65, 40-65 and under 40 years respectively (Fig 3). The mean outpatient and inpatient visit time was 6.6 and 1.1 times during study period, respectively (Fig 4). The diagnosis overlap of CP and benign prostatic hyperplasia (BPH) within one year of index date was 22.91% in 2002 and 2.90% in 2013 (Fig 5).

CONCLUSIONS

The morbidity rate of CP increased progressively during our study period (2002-2013) but the overlap of confusing diagnosis decreased. This could be explained by the available use of PPS (Pentosan polysulfate sodium) and HA (hyaluronic acid) in Taiwan at the period. The older age yielded higher incidence and prevalence was similar to previous studies. The most common onset age was 40-65 years in our data. Because of the unpredictable treatment outcome and chronic characteristic, the morbidity rate would further increase in the future. Due to no effective treatment for CP, the mean admission and outpatient visit time per year was similar during these years. However, the medical need will still increase in the future because of its elevating morbidity rate.

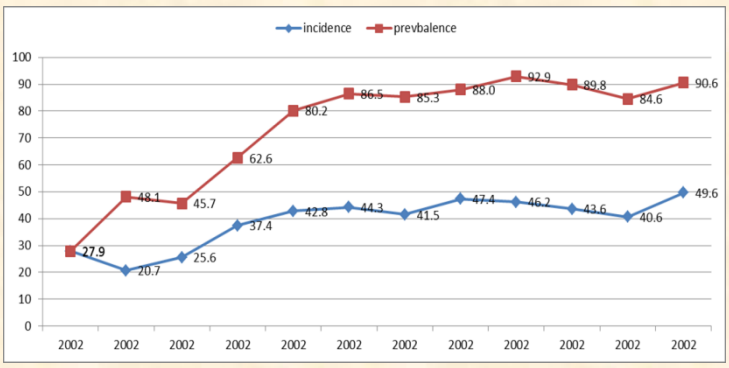

Figure 1. Chronic prostatitis incidence and prevalence between 2002-2013 in LHID 2010 (per 100,000)

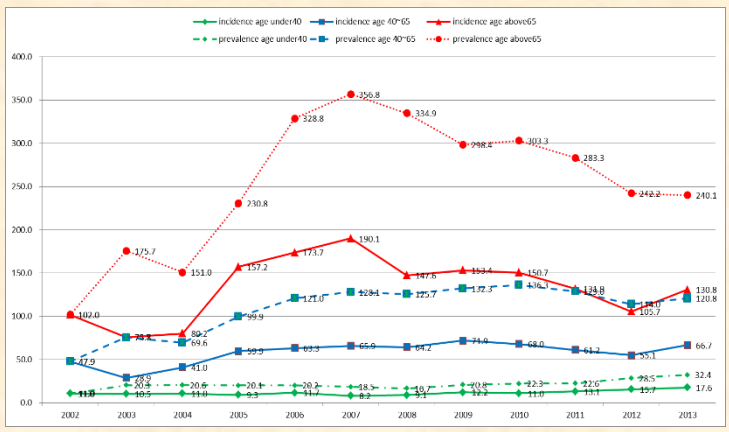

Figure 2. Chronic prostatitis incidence and prevalence between 2002-2013 (by age) in LHID 2010 (per 100,000)

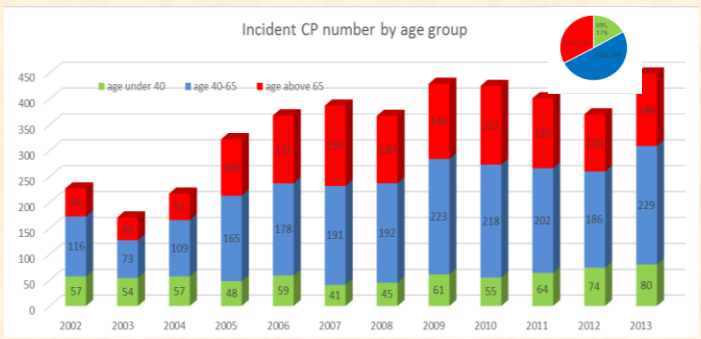

Figure 3. Incident Chronic prostatitis number by age group

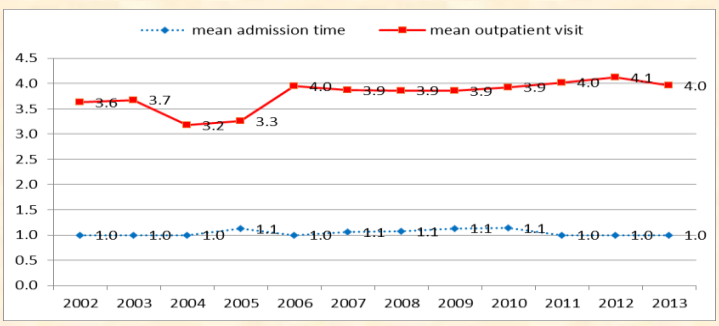

Figure 4. Distribution of hospitalizations and outpatient visits for chronic prostatitis patients between 2002-2013 in LHID 2010

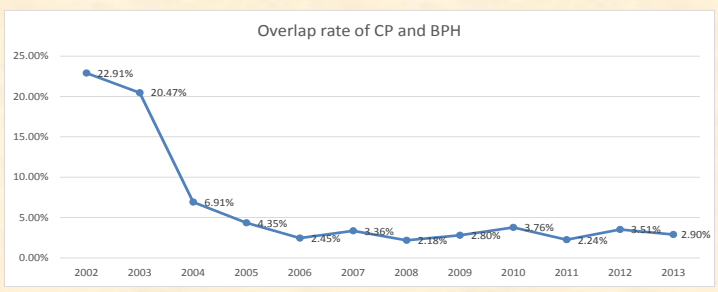

Figure 5. Overlap rate of chronic prostatitis and benigh prostatic hyperplasia