REAL-WORLD HEALTHCARE RESOURCE UTILIZATION AND RELATED COSTS ASSOCIATED WITH HYPERTROPHIC CARDIOMYOPATHY IN THE BRAZILIAN PRIVATE MARKET

CAPESESP
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Reis Neto, JP and Busch, JM
CAPESESP, Rio de Janeiro, RJ, Brazil

BACKGROUND

Hypertrophic cardiomyopathy (HCM) is a complex cardiac disease with a highly variable clinical profile, occurring in about 1 in 500 individuals and can affect people of any age but is more likely as age increases. Patients with left ventricular outflow tract obstruction, also known as obstructive HCM, account for nearly two-thirds of patients with HCM and have a significant burden of comorbidities, including hypertension, heart failure, and atrial fibrillation. Despite the primary treatment for is pharmacotherapy, if symptoms persist or the obstruction worsens on drug therapy, invasive treatments may be indicated. In rare cases of end-stage heart failure, heart transplantation may be required.

OBJECTIVES

In Brazil, there are limited data evaluating all-cause and disease-related healthcare resource utilization (HCRU) and cost of care. This study investigated the clinical and economic burden of disease.

METHODS

Retrospective database study using longitudinal medical and pharmacy claims data from January/2019—December/2023. Adults with HCM diagnoses (ICD-10 I42.1, or I42.2) and treated with pharmacotherapies and procedures (septal reduction therapy, valve repair, implantable cardioverter-defibrillator, and pacemaker implantation) were identified. For comparative purposes, we defined another group of individuals with other cardiomyopathies listed in ICD-10 I42 (CM).

From January/2019 to December/2023

Adults with HCM
(ICD-10 I42.1, or I42.2)

Treated with pharmacotherapies and procedures

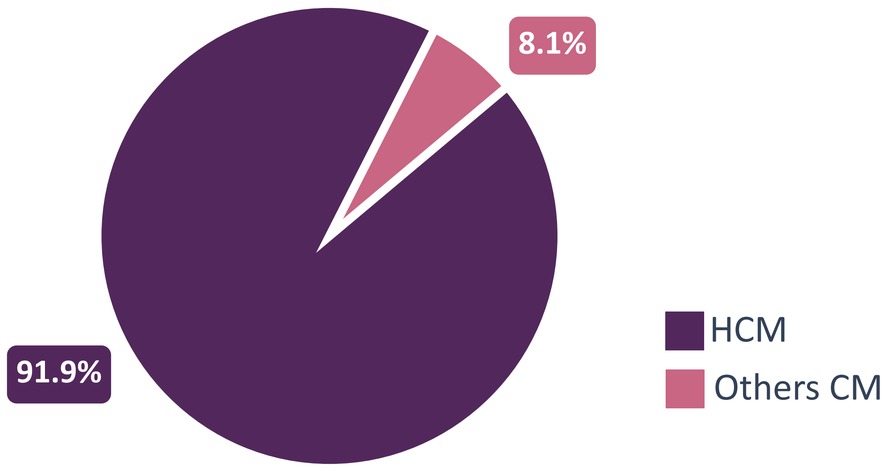
septal reduction therapy, valve repair, implantable cardioverter-defibrillator, and pacemaker implantation

Available data including demographics, HCRU, and costs (assessed from the payer's perspective) were reported for the year and also includes inpatient/outpatient visits, surgery, emergency department, tests, and all coordination of benefits. Chi-square and Fisher's exact and Student's T-tests for categorical/continuous measures were used. Statistical significance for $p<0.05$.

RESULTS

Of 60,012 beneficiaries, 123 patients (0.2%) had cardiomyopathy (68 ± 17 years; 56% female), 8.1% diagnosed with HCM (61 ± 23 years; 60% female) (Figure 1).

Figure 1 - Distribution of patients with cardiomyopathies



From them, the rate of procedures per year (Figure 2) cardiologist visit, emergency room visit, tests, therapies, and hospitalization were 8.44, 2.90, 100.31, 35.40 and 0.62, respectively. When compared to other cardiomyopathies, the HCRU was higher, 6.30, 1.95, 68.70, 9.97 and 0.29, respectively.

Figure 2 - Comparison of Annual Health Plan Utilization Rates

Utilization Rates per Beneficiary per Year	HCM	Others CM	Variation
Consults	8.44	6.30	34.0%
Emergency Room	2.90	1.95	48.7%
Outpatient Tests	100.31	68.70	46.0%
Therapies	35.40	9.97	255.1%
Hospitalizations*	0.62	0.29	113.8%

*Average Length of Hospital Stay - 29 days for HCM and 8 days for others cardiomyopathies

Annualized healthcare costs associated with the HCM were $16,476 per patient, almost four times higher than those with other non-obstructive cardiomyopathies ($4,741) (Figure 3) .

Figure 3 - Comparison of annual expenses per patient

HCM $16,476 VS CM $4,741

CONCLUSIONS

In Brazil little is known about HCRU, and costs associated with HCM symptomatic. Most patients with HCM had a delay of ≤ 2 years before receiving the definitive diagnosis. In our study of real-world, HCM was associated with substantial increases in HCRU and incremental costs of when compared with other non-obstructive cardiomyopathies. New treatments include one disease-specific medication to treat hypertrophic cardiomyopathy (obstructive form) in people who have symptoms. Further studies are warranted to understand the potential impact of specific therapies on HCRU and the economic burden of HCM to support health managers to use financial resources with better outcomes.

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