INTRODUCTION

- Multiple sclerosis (MS) is three times more common in women than in men, and the clinical onset is often during childhood years.1
- There have been some reports suggesting that fertility in women with MS may be reduced.1,4
- Data regarding the diagnosis and treatment of infertility in women with MS compared with women without MS are lacking.
- The availability of health services utilization data, commonly referred to as administrative claims data, affords a unique opportunity to gain insight into the patient experience of care and relevant health outcomes in patients with MS across large, ‘real-world’ populations.
- A better understanding of the real-world outcomes of women with MS undergoing infertility treatment is essential to improve clinical support, healthcare services, and quality of life for this population.

OBJECTIVE

- To compare the prevalence of infertility and the infertility treatments administered to women with and without MS. Based on United States retrospective commercial claims analysis.

METHODS

Data description

- This was a retrospective, administrative claims database study using IMS Health Real World Data. Administrative claims – US data between January 1, 2006 and December 31, 2015.
- The database comprises complete adjudicated plan-level data, including a complete inventory of individuals’ prescriptions, inpatient hospital claims, and outpatient claims.
- The database consists primarily of commercial preferences provider organization plans.
- Variations in treatments between the infertility practices and in the coverage of infertility benefits among different plans may not be appropriately reflected in the claims data.
- Administrative claims databases provide information on patients with health insurance; thus, findings may not be appropriately reflected in the individual claims.

RESULTS

Sample selection

- A total of 117,041 women with MS met the eligibility criteria.
- A comparator group of 1,422,836 women without MS was also selected.

Baseline characteristics

- Demographics and clinical characteristics for the original unmatched sample individuals are presented in Table 1.
- Demographics and clinical characteristics for the matched sample individuals are presented in Table 2.

Infertility treatments and live births

- A lower proportion of women with MS used any of the infertility treatments examined compared with women without MS (5.00% vs 6.98%; p=0.0006; Table 3).
- Women receiving infertility treatments, more than half received oral infertility medications without Gn (54.9% of women with MS vs 54.8% of women without MS).
- The remaining women received either injectable COS medications (22.2% of women with MS vs 25.5% of women without MS) or other treatments (22.3% vs 20.2% respectively; Table 3).
- The proportion of women using each of the individual infertility treatments was significantly lower in women with MS compared with women without MS (p<0.05, except for GnRH antagonists (Table 3).
- The rate of live births was significantly lower in women with MS than in women without MS (5.00% vs 8.88%; p<0.0001; Table 3).

DISCUSSIONS

- Claims data are not specifically collected for research purposes, and diagnosis and drug-use information are not always validated; as such, there can be missing information that limits the inferences that can be made from the data.
- The ICD-9-CM code for systemic MS does not distinguish between different MS types (e.g. primary progressive, relapsing–remitting, and secondary progressive MS).
- US administrative claims databases provide information on potential diagnoses and care administered by regional health plans in the US, and the results may not be generalizable to individuals who self-pay or those without employer-sponsored commercial health insurance.

CONCLUSIONS

- Compared with women with MS, women without MS were more likely to have a diagnosis of infertility, less likely to use infertility treatments, and less likely to have a live birth.
- This exploratory analysis should be interpreted with caution as it is only representative of a commercial population sample and further research is warranted.

REFERENCES

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