

Prevalence of cancer in multiple sclerosis patients in Argentina. Cross sectional study from RelevarEM

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Declaration of Competing Interest

The authors declare no potential conflicts of interest regarding the research, authorship and/or publication of this poster.

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Introduction and Objective

Multiple Sclerosis (MS) is an autoimmune demyelinating and neurodegenerative disease of the central nervous system of multifactorial origin. Studies about the prevalence of cancer in MS population are scarce and results are conflicting. Previous studies described a higher prevalence as well as an increased risk of cancer in MS patients while there are others that found no differences regarding general population. The aim of our study was to estimate the prevalence of cancer in MS patients in Argentina.

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Methods

The eligible study population and cohort selection included all patients with definite MS registered in the Argentinean MS and NMOSD registry (RelevarEM, NCT 03375177) at 31 December 2019. History of current or past cancer diagnosis, was collected. Prevalence rates and 95% CI were calculated.

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Results

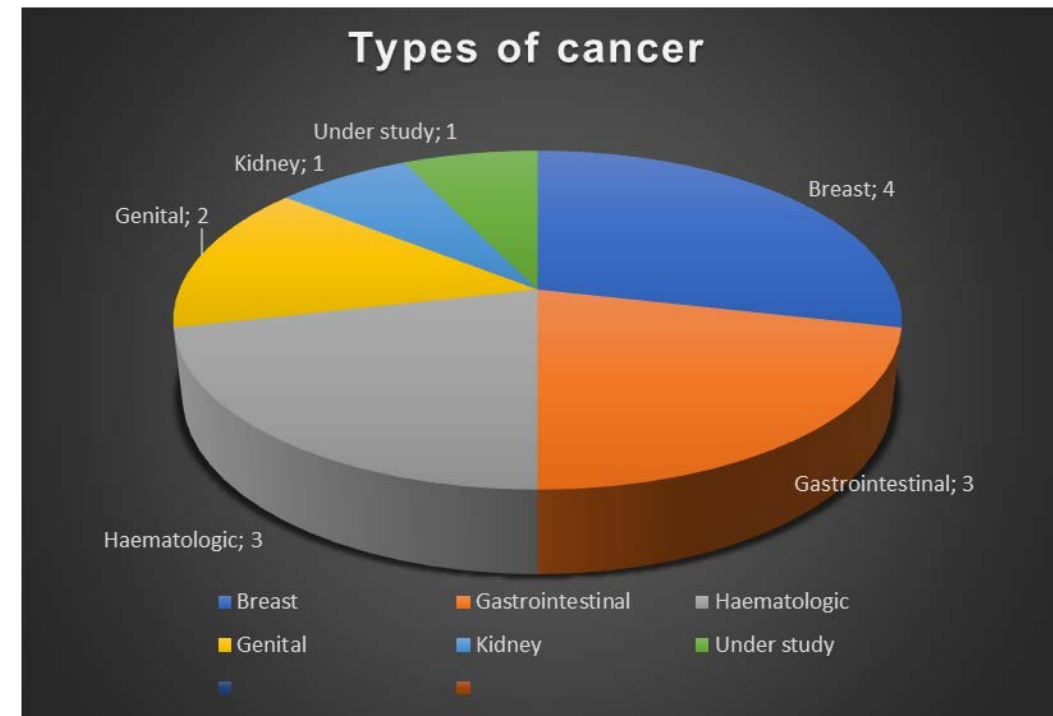
We analyzed 2647 MS patients. 14 malignancies were identified. Overall prevalence of cancer was 0.53% (CI95% 0.02-0.08%). 78.6% were female, 85.8% relapsing remitting MS. Median (IQR) disease duration: 10.5 (6-13) years; median (IQR) age at diagnosis: 42.5 (37-49); median (IQR) age at study date: 52.5; median (IQR) current EDSS: 2 (1.5-4.5); 42% patients were untreated and 58% under DMT (beta interferon 1a: 14.3%, 1b: 7.1%, glatiramer acetate: 7.1% and fingolimod: 28.6%) at time of this study. Most frequent malignancy was breast cancer (28.6%).

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Results

| Variables | Results (n=14) |
|--|----------------|
| Age at MS diagnosis, median (IQR) | 42,5 (37-49) |
| Age at last control visit, median (IQR) | 52,5 (44-60) |
| MS Phenotype distribution | |
| RRMS | 12 (85,8%) |
| SPMS | 1 (7,1%) |
| PPMS | 1 (7,1%) |
| Sex: | |
| Female | 11 (78,6%) |
| Male | 3 (21,4%) |
| Median (IQR) time of MS from diagnosis in years. | 10,5 (6-13) |
| Current Treatment: | |
| - Interferon Beta 1b SC | 1 (7,1%) |
| - Interferón Beta 1a SC | 2 (14,3%) |
| - Glatiramer Acetate | 1 (7,1%) |
| - Fingolimod | 4 (28,6%) |
| - No treatment | 6 (42,7%) * |
| Median (IQR) EDSS | 2 (1,5-4,5) |
| Type of neoplasm (sex stratified): | |
| Female: | |
| - Breast cancer | 4 (28,6%) |
| - Kidney cancer | 1 (7,1%) |
| - Cervical metaplasia (Uterus) | 1 (7,1%) |
| - Under study | 1 (7,1%) |
| - Gastrointestinal tumor | 1 (7,1%) |
| - Pancreatic cancer | 1 (7,1%) |
| - Colon cancer | 1 (7,1%) |
| - Acute lymphocytic leukaemia B | 1 (7,1%) |
| Males: | |
| - Chronic lymphocytic leukaemia | 1 (7,1%) |
| - Non-seminomatous testicular cancer | 1 (7,1%) |
| - Tonsil Lymphoepithelial Carcinoma | 1 (7,1%) |



*3 patients were under MS treatment when cancer diagnosis was made, but had discontinued at the time of this study.

Conclusions

- ❑ In our study the prevalence of cancer in MS population in Argentina was 0.53% (CI 95% 0.02-0.08).
- ❑ Females were more affected than males.
- ❑ Breast cancer was the most frequently identified.
- ❑ Studies evaluating differences in the risk of cancer in the MS population as compared to the general population are needed to fully consider common risk factors for cancer such as smoking, physical inactivity, diet, and immunosuppressive drug therapies exposure.