SOHO ANNUAL MEETING 2024

EPIDEMIOLOGICAL DIFFERENCES IN YOUNG ONSET MULTIPLE MYELOMA BETWEEN A DEVELOPED AND DEVELOPING COUNTRY: AN EPIDEMIOLOGICAL STUDY USING THE JORDAN CANCER REGISTRY AND THE SEER DATABASE FROM 2009-2019

Marah Alzubi[1], Jawad Alrawabdeh[1], Feras Alfararjeh[1,2], Laith Alshoubaki[1,2], Husam Alqaisi[1,2], Abdalla Awidi[1,2,3]

1- University of Jordan, School of Medicine, Amman, Jordan
2- Jordan University Hospital, Amman, Jordan
3- Cell Therapy Center, University of Jordan, Amman, Jordan

INTRODUCTION

Little is known about Young Onset Multiple Myeloma, especially in developing countries. In addition, Jordan specifically has been shown to have different epidemiology in many different cancers. For example, the median age of diagnosis of breast cancer in Jordan is 51 years, in comparison to 62 years for the US population.

AIM

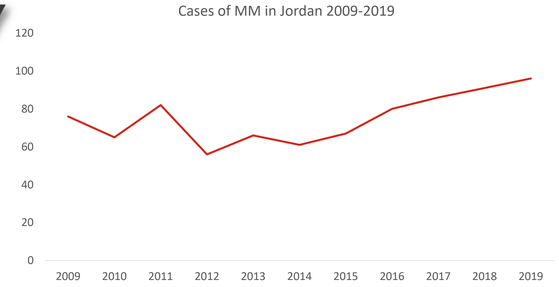
To describe the epidemiology of Young Onset Multiple Myeloma in a developing and a developed country. This includes comparing incidence of Young Onset Myeloma, range of ages, age at diagnosis, incidence rates, and male to female ratios.

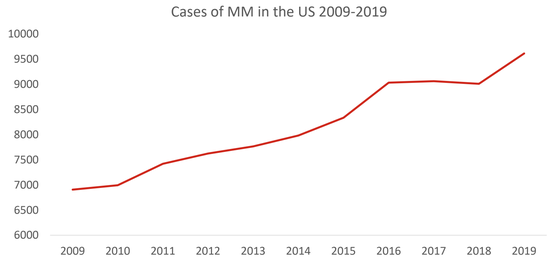
METHOD

Our study is an epidemiological study using data from Jordan, a developing country, gathered from the Jordan Cancer Registry. Data from the US was obtained from the Surveillance, Epidemiology, and End Results (SEER) Program. All patients older than 20 years old diagnosed with Multiple Myeloma were included in our study. Young Onset Multiple Myeloma was defined as patients diagnosed with Multiple Myeloma at an age less than 50.

RESULTS

A total of 826 patients were included from the Jordan Cancer Registry, and 89719 from the SEER database. The median age for Jordanian patients was 62, and the median age for US patients was 66. The percentage of males was 58.5% for Jordanian patients, and 54.5% for US patients. The number of young onset MM patients in the Jordanian cohort was 146 (17.7%), and 7463 (8.3%) for the US cohort. The gender ratio differed in young onset MM patients, with 97 (66.4%) males in the Jordanian cohort, and 4108 (55%) for the US cohort. The incidence rate for the US cohort was 7.3 per 100,000 person years, and 2.23 per 100,000 person years in the Jordanian cohort. The incidence rate for young onset MM in the US cohort was 1.1 per 100,000 person years, and 0.5 per 100,000 person years in the Jordanian cohort.





Year of Diagnosis	No. of patients in the US	No. of patients in Jordan	Incidence Rate US	Incidence Rate Jordan
2009	6905	76	1.1 per 100,000 person years	0.5 per 100,000 person years
2010	6992	65		
2011	7418	82		
2012	7623	56		
2013	7764	66		
2014	7979	61		
2015	8333	67		
2016	9029	80		
2017	9058	86		
2018	9007	91		
2019	9610	96		

CONCLUSIONS

The US and Jordanian cohorts were similar epidemiologically for MM in all ages. However, a difference is noted in young onset MM. The proportion of young onset MM cases was almost twice as frequent in the Jordanian cohort compared to the US cohort. Young onset MM patients in Jordan were more likely to be male, compared to older patients.

REFERENCES

Abdel-Razeq, H., Mansour, A., & Jaddan, D. (2020). Breast cancer care in Jordan. JCO Global Oncology, (6), 260–268. https://doi.org/10.1200/jgo.19.00279

ACKNOWLEDGEMENTS

The authors want to acknowledge Dr. Omar Al-Nimri for his help in collecting data.

CONTACT INFORMATION

Marahalzubi01@gmail.com