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Demographics and Survival in AML patients over 60 Years of Age. A single Institutional Analysis

Damilola Gbadebo[1], Nwabundo Anusim, M.D.[2], Ishmael Jaiyesimi, D.O.[3]
[1]Class of 2023 M.D. Candidate, Oakland University William Beaumont School of Medicine
[2,3]Department of Medical Oncology, Beaumont Health System

Introduction

Acute Myeloid Leukemia (AML) is a malignancy of the myeloid cell line. Patients diagnosed with AML, typically exhibit symptoms of neutropenia, anemia and thrombocytopenia. The diagnosis of AML is based on greater than 20 percent of myeloid cells in the bone marrow (1). Some risk factors for acquiring the disease include, but not limited to age, sex, smoking, exposure to certain chemicals, radiation, genetic predisposition and being treated with certain chemotherapeutic agents (2).

AML is frequently diagnosed among people between ages 65-74, with a current relative survival rate for AML being 28.7%. Men account for majority of these cases, at a rate of 5.2 per 100,000 persons compared to 3.6 per 100,000 persons for female patients (3).

Aims and Objectives

Our study will assess whether treatment for AML patients has improved after 2015 with the utilization of novel chemotherapeutic agents, particularly for Beaumont Hospital patients.

Specific Aim 1. Assess the outcomes of Acute Myeloid Leukemia (AML) patients age 60 and over, prior to, and after 2015 in the Beaumont Health System.

Specific Aim 2. Comparison of clinical outcomes of African American patients, compared to White patients, age 60 and over during the same time period.

Methods

400 patients were analyzed, and 19 patients were taken from 2010-2014 and 11 patients were taken from 2015-2020. Survival time was calculated based on the date of diagnosis, and the deceased date. A welch T-test was used to calculate statistical significance.

Results

There were 19 patients in the pre 2015 group (2010-2014) with an average age of 69.58 and a survival time of approximately 10 months. The post 2015 group (2015-2020) had 11 patients, with an average age of 76.93 and survival time of approximately 5 months. Comparison of both data gave a p value of .2267

Average Age of Patients

Average patient survival (Months)

Patient Survival Rates Comparison
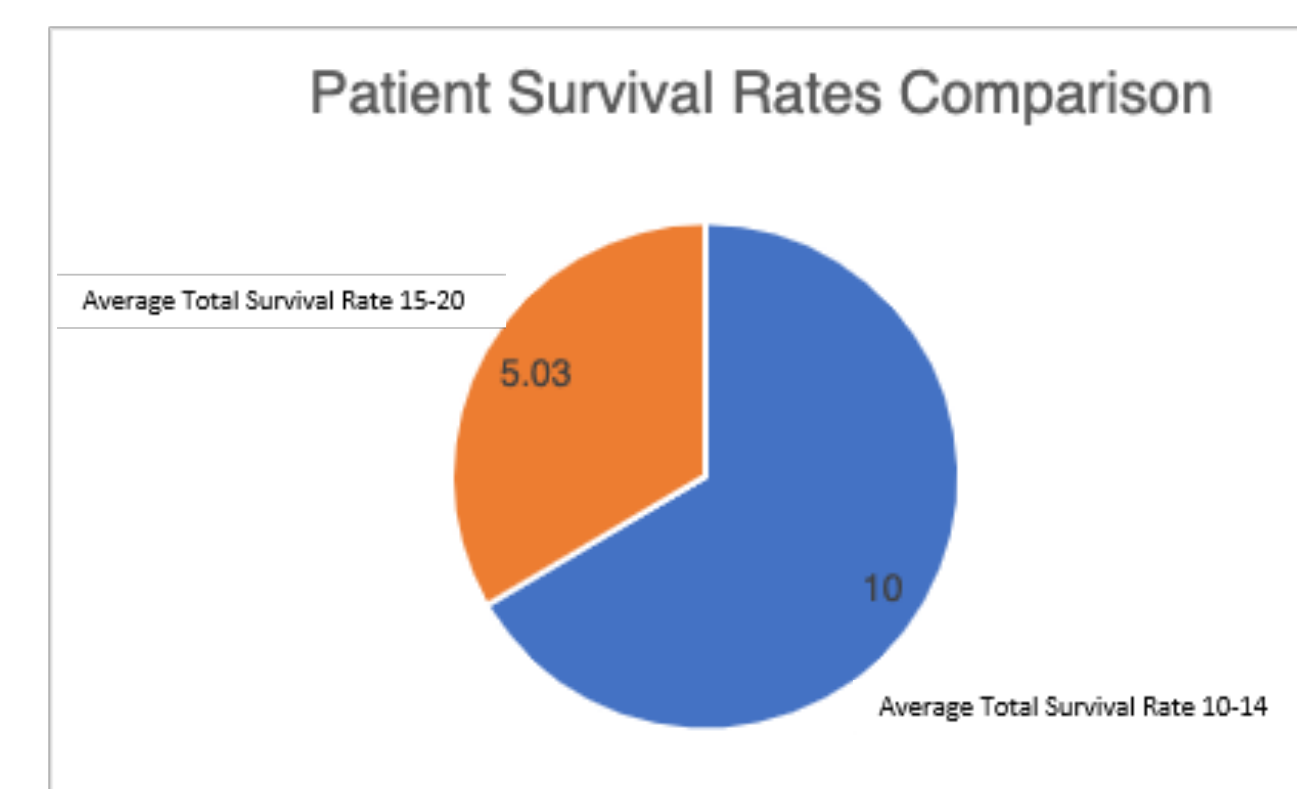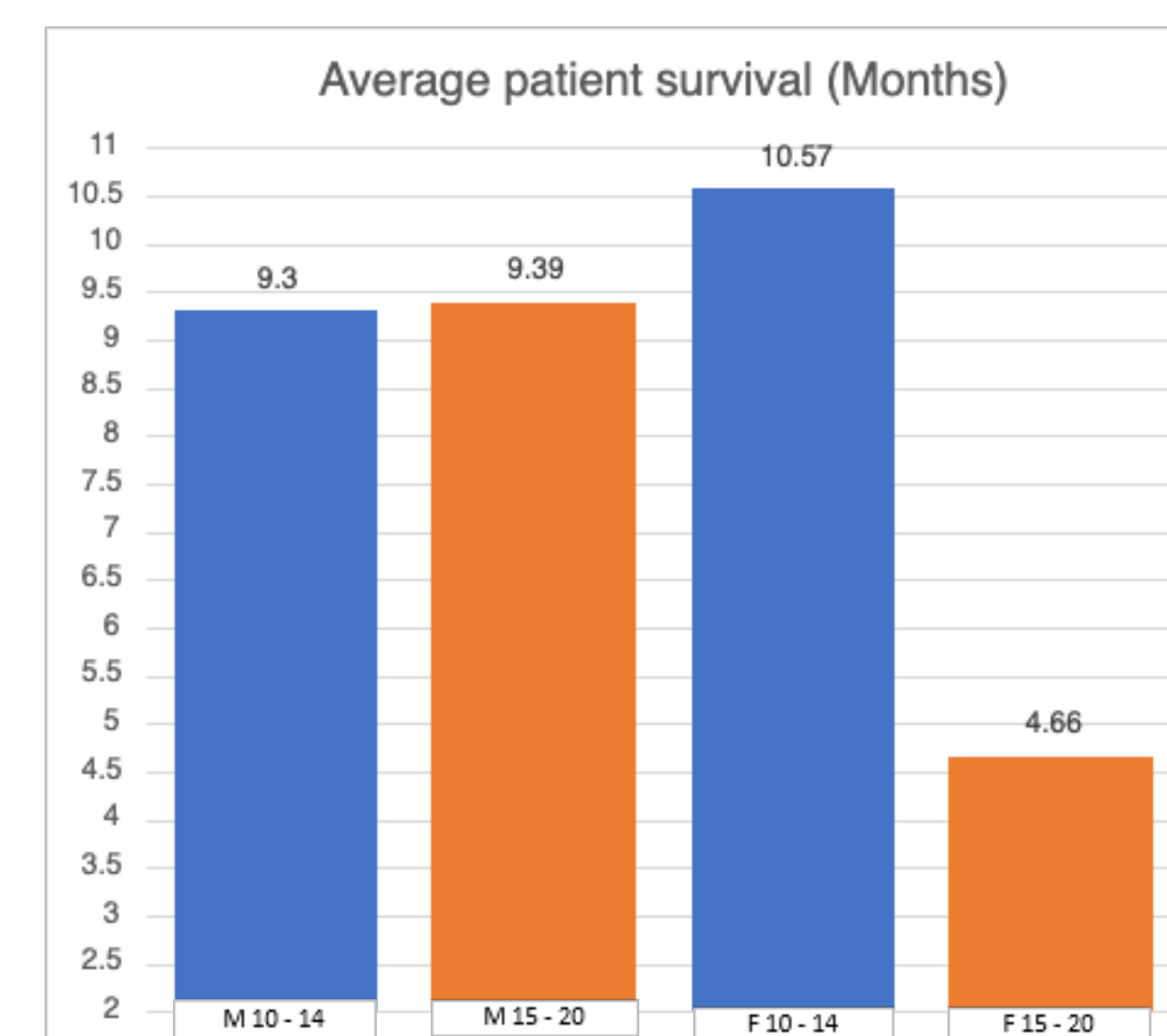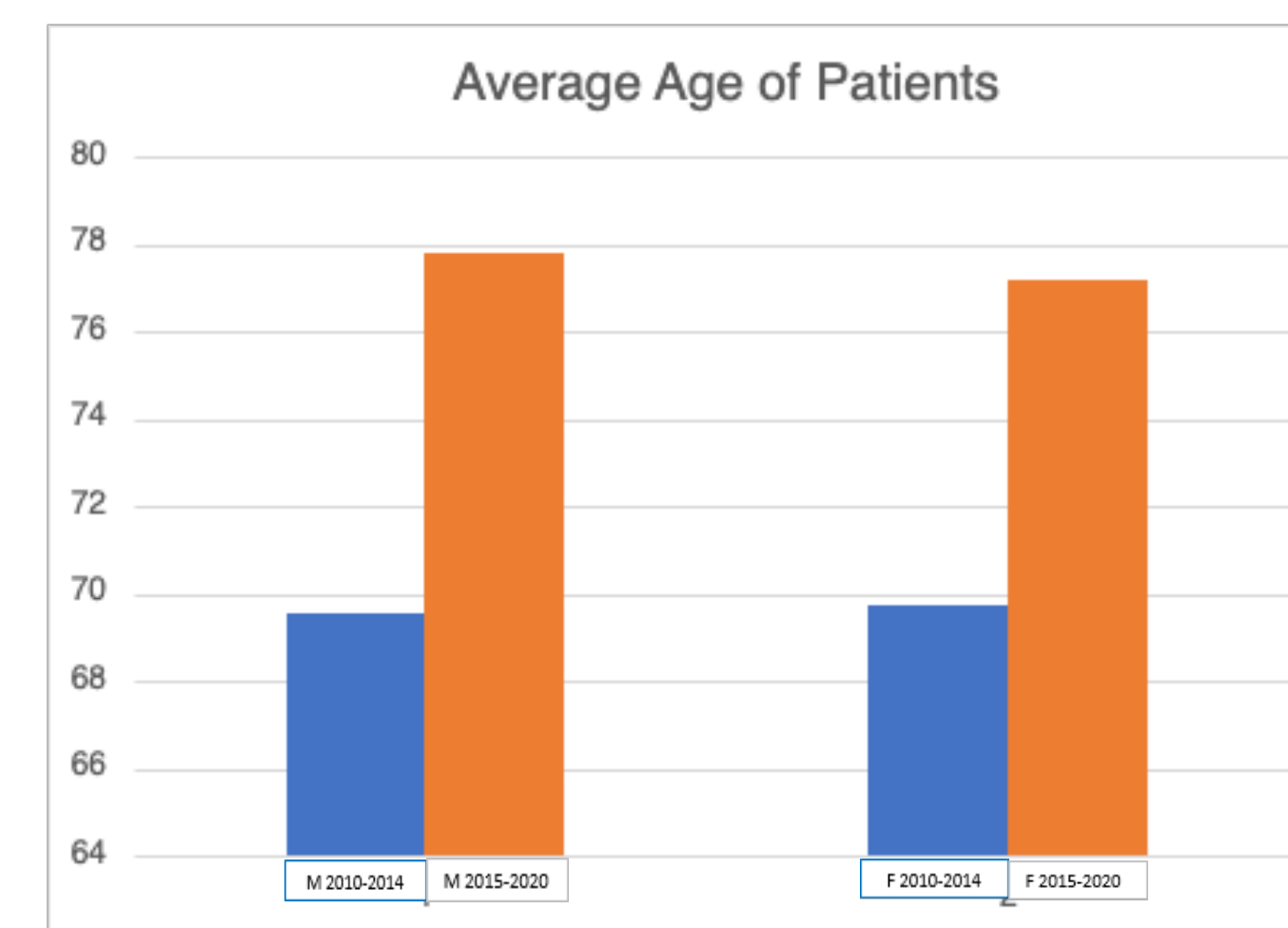
Conclusions

The results did not support the hypothesis, that patients treated after 2015 will have better survival rates. This could be due to the post 2015 patients having a higher age of diagnosis, or the lack of power of the study. The second aim was also not addressed due to lack of patients that met the criteria.

References

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3. Acute Myeloid Leukemia - Cancer Stat Facts. SEER. https://seer.cancer.gov/statfacts/html/amyl.html. Accessed January 18, 2021.

Acknowledgements

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