

## INTRODUCTION

Worldwide, breast cancer is the most frequently diagnosed life-threatening cancer in women. In less-developed countries, it is the leading cause of cancer death in women; in developed countries, however, it has been surpassed by lung cancer as a cause of cancer death in women.<sup>1</sup>

In the United States, breast cancer accounts for 29% of all cancers in women and is second only to lung cancer as a cause of cancer deaths.<sup>2</sup>

## BACKGROUND

Cancer is an important health concern in Libya, especially in the setting of an aging population and limited healthcare facilities.

According to the 2006 census, over 5.5 million people lived in Libya, with 28.5% (n = 1613749) residing in the eastern part of the country. Benghazi is the largest city in eastern Libya with over 670000 inhabitants. The area under study covered from Ejdabia in the west to Emsaed in the east moving to Kofra in the south.<sup>3</sup>

## MATERIALS AND METHODS

### Data collection

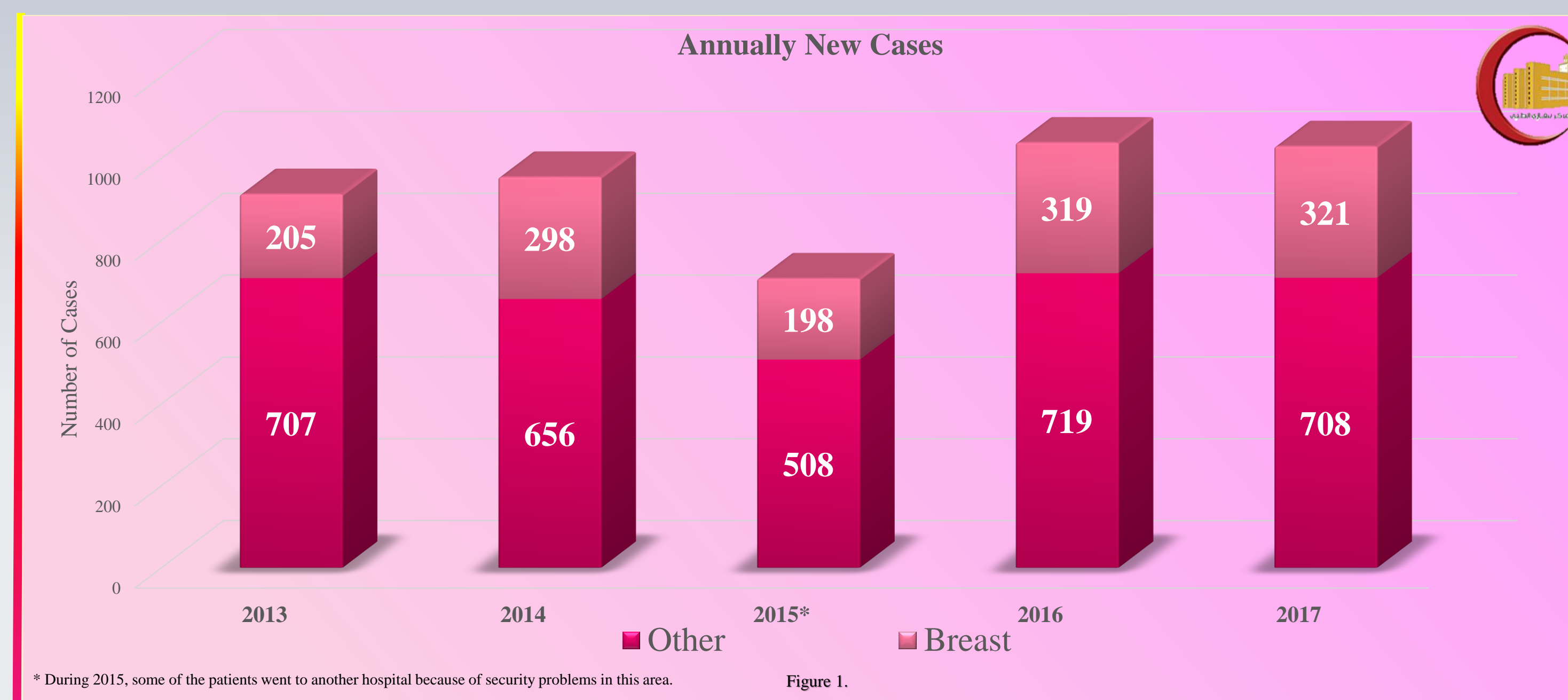
Data were obtained from the patient records of those who were diagnosed in the Department of Oncology at Benghazi Medical Center (BMC) from January 1, 2013 to December 31, 2017.

The department receives effectively all the cancer cases in Benghazi and the overwhelming majority of the malignancy patients in eastern Libya (being the only oncological center in the region).

(Figure 1. Number of total breast cancer and other types)

(Figure 2. Geographic distribution of breast cancer)

(Figure 3. Age at presentation of breast cancer)



\* During 2015, some of the patients went to another hospital because of security problems in this area.

Figure 1.

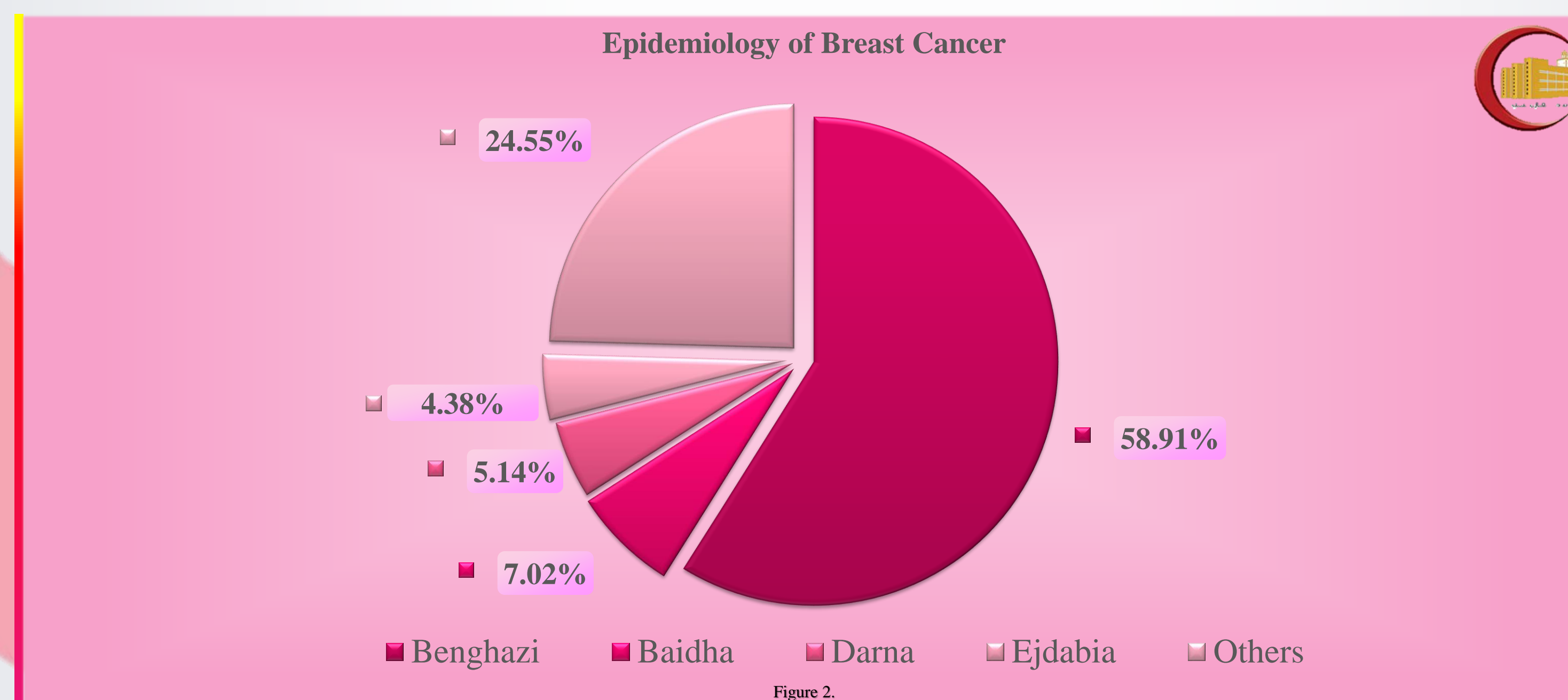


Figure 2.

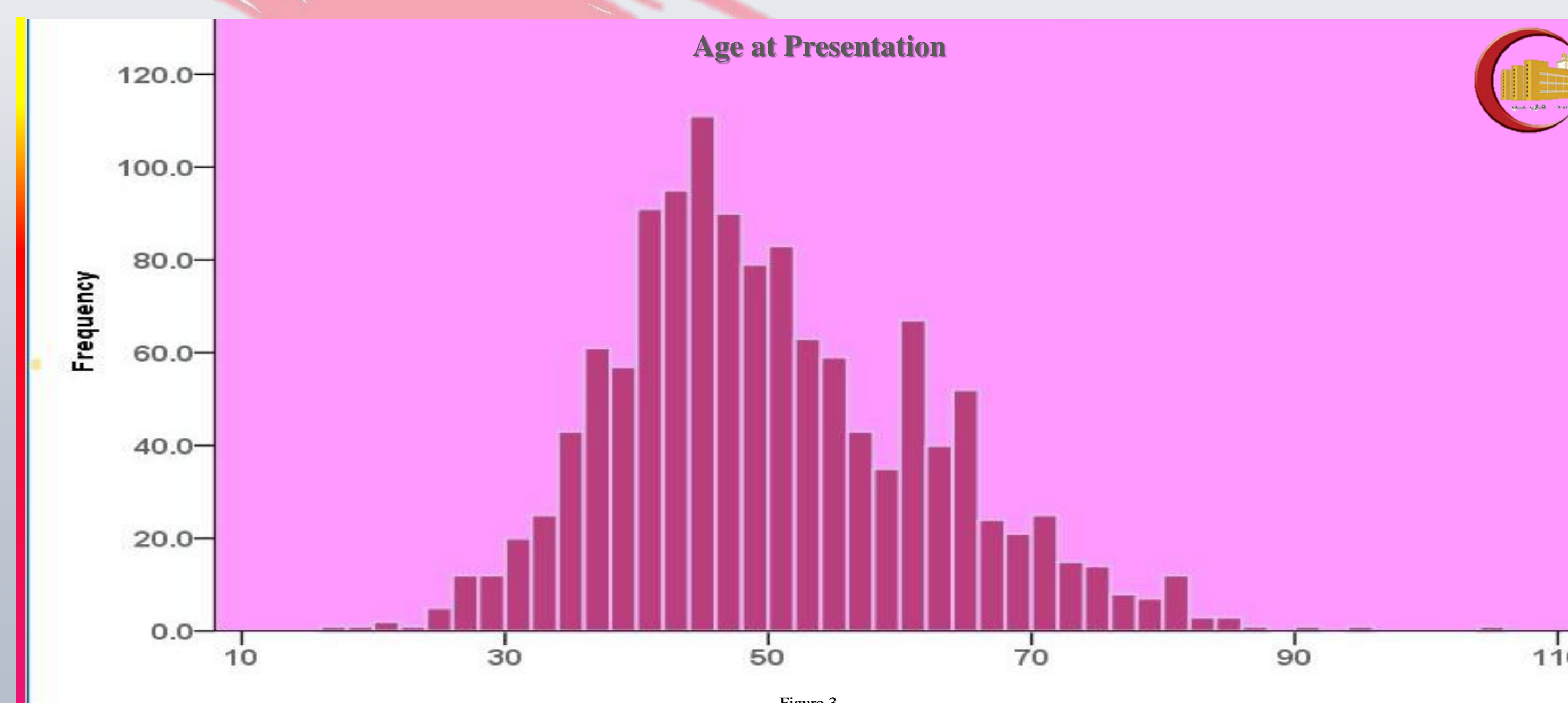


Figure 3.

## RESULTS

Breast cancer is the most common cancer in the eastern part of Libya (EL), it has grown from 22% of all cancers in 2013 to reach 31% in 2017, with about 268 patients annually.

Benghazi is the largest city in EL, so it has the largest number of all patients with a percentage of 59%, followed by Albaidha with 7%, Darna with 5%, and the remains 29% from different cities in EL.

A total of 1341 cases of breast cancer were recorded at the Department of Oncology at BMC during 2013-2017. Seventy-two cases were referrals from outside the eastern region seeking services in Benghazi and were excluded from this study, leaving 1269 eligible cases. Fifty-four cases did not have a recorded date of birth, so they were included in the incidence but were excluded from any calculations involving age or age distribution (leaving 1215 patients with full data).

The overall average age of breast cancer patients at presentation was 49.8 ± 12 years, ranging from 17 to 104 years.

## CONCLUSION

From this study we conclude that breast cancer is the most common cancer in EL, with a predominance of its cases in Benghazi.

Breast cancer has an increased incidence for the last 5 years ( 2% every year), and the most common age at presentation is the age of perimenopause (45-55).

## REFERENCES

1. Torre LA, Bray F, Siegel RL, Ferlay J, Lortet-Tieulent J, Jemal A. Global cancer statistics, 2012. *CA Cancer J Clin.* 2015 Mar. 65(2):87-108.
2. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2018. *CA Cancer J Clin.* 2018 Jan. 68 (1):7-30.
3. Zuhir Bodalal, Raouf Azzuz, Riyadh Bendardaf. Cancers in Eastern Libya: First results from Benghazi Medical Center, 2014. *World J Gastroenterol.* 2014 May 28; 20(20): 6293–6301.