Introduction

IBC is an aggressive locally advanced breast cancer. It is defined as a clinico-pathological entity characterized by diffuse erythema and edema involving one-third or more of the breast skin [1]. In comparison to breast cancer cases worldwide, Egyptian patients are usually diagnosed at younger age (<45 years). Studies also suggest a higher incidence of IBC among Egyptians (10-15% of breast cancer cases) compared to worldwide incidence rates (1-5%) [2, 3]. This study aims to determine the characteristics of primary IBC in Egypt and evaluate disease free and overall survival, as well as factors affecting patients' survival.

Methods

A retrospective case series of IBC patients presenting to specialized breast cancer units during the period from 1/2012 until 12/2015, followed up to 6/2017.Selected units were: Arab Breast Centre in Cairo, Oncology Centre Mansura University and Famous Cancer Centre in rural Delta area. Protocol based multidisciplinary management were implemented, patients received neoadjuvent chemotherapy followed by surgery and radiotherapy, then hormonal and/or targeted therapy according to molecular type. Patients' data were collected from medical records and analysed. Pearson Correlation analysis of survival was done, Kaplan-Meier analysis was performed using IBM® SPSS® V23. The significance level was set at $P \leq 0.05$.

Results

48 patients were diagnosed with primary IBC, calculated incidence of IBC was 9.8% of breast cancer cases presented to the selected units during the study timeframe. Mean age at diagnosis was 49 ± 11 years and 8.3% of patient presented with gestational IBC. 97.9% were invasive duct carcinoma and 2.1% were invasive lobular carcinoma pathological type. Also 70.8% were pathological grade II and 29.2% were grade III, molecular types are presented in (figure 1). Complete clinical response to neoadjuvant treatment was observed in 6.3% of patients, partial response was found in 87.5%. Median survival was 87.5%. Significant correlation was found between tumour grade and overall survival (r: +0.498, p: 0.001) and between Nottingham prognostic index (NPI) (Table 1) and time to recurrence (r:-0.415, p: 0.021). Kaplan-Meier