Objectives The aim of our study was to determine the distribution of histological subtypes of breast cancer (BC) in Tunisian population and to study their prognostic and therapeutic features.

Methods A retrospective study was conducted between January 2011 and December 2018 in our department. A total of 93 cases of BC, using immunohistochemistry, were classified into 4 major molecular subtypes: luminal A, luminal B, HER2-positive, and triple negative.

Results Luminal A (50%) subtype was the most prevalent, followed by triple negative (20%), HER2-positive (16%), and luminal B (14%). Median age was 45 years. 90% of cases were ductal, Axillary lymph nodes were involved in 43% of all cases and in 73% of triple negative BC. SBR 2–3 was found in 64% of all cases and in 100% of luminal B BC. Ki67>20 was observed in 92%, 71%, 63% and 5% of luminal B, HER2-positive, triple negative and luminal A respectively. The DFS at 5 years was 88%. Metastatic relapse was observed in 72% of all population and in 10% of triple negative subtype. Visceral metastases were observed in 100% of triple negative BC while bone metastases were diagnosed in 60% of luminal A subtype. In Lumina A subtype, median DFS and OS were respectively 54.4 and 58.4 months, followed by triple-negative (50.9 and 56.8 months), then HER2-positive (41.7 and 47.4 months), and finally the worst survivals were attributed to luminal B subtype (31.3 and 37.3 months).

Conclusions Our study demonstrated that luminal B BC were characterized by a poor prognosis probably because of the underestimation of their aggressiveness and consequently of the less intensive therapeutic management than necessary.