

Factors affecting breast cancer (BC) treatment delay in Turkey

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Background & Aim: One of the most important reasons of BC mortality is delay in treatment. Due to lack of BC awareness and organized screening programs, total delay time (from first symptoms of BC to initiation of treatment; TDT) is longer in low-middle income countries. The primary goal of this survey was to identify factors affecting TDT in patients with BC.

Methods: As a part of previously presented multinational survey, a total of 1.031 BC patients from 12 cities of 5 districts in Turkey were surveyed using a uniform questionnaire. TDT was determined using 8 individual scales, including one pertaining to patient delay and 7 related to subsequent steps in a typical diagnostic process. Regression models were constructed using 17 variables concerning diverse contextual and personal patient characteristics. Time between first symptom and first medical visit (Patient Delay Time; PDT) and time between first medical visit and start of therapy (System Delay Time; SDT) were modeled separately with multilevel regression.

Results: Mean PDT, SDT and TDT were 4.8, 10.5 and 13.8

weeks respectively, with 42% of the patients with a delay of >12 weeks. Multilevel regression equation indicated that disregard of discovered symptoms ($p<0.001$) and having at least secondary level of education ($p=0.021$) were significantly correlated with longer PDT. Patients with stronger self examination habits ($p=0.009$), reporting more support from friends and family ($p<0.001$) and living in metropolitan areas (>500k) ($p=0.006$) had shorter PDT. Predictors of longer SDT included disregard ($p<0.001$) and having a PDT>4 weeks ($p<0.001$). Shorter SDT was correlated to being older than 60 years of age ($p=0.027$). Results revealed that diagnosis during periodic check-up or opportunistic mammography vs. symptomatic BC ($p<0.001$) and having first medical examination by a surgeon resulted in shorter SDT.

Conclusions: TDT in Turkey is unacceptably long and system delay accounted for a substantial part of the total delay experienced by breast cancer patients. This points to a need for shortening clinical pathways if possible. A long patient delay calls for research into patient awareness of BC.

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