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Young Women Frequently Delay Breast Cancer Assessment

Timely Diagnosis Is Important

Abstract: Diagnostic Delay Among Young Women with Breast Cancer

Orlando, FL, April 11, 2024—Young women who have breast concerns should seek timely medical assessment, and primary care physicians should be vigilant in evaluation and follow up of complaints, suggests a new study presented this week at The American Society of Breast Surgeons Annual Meeting in Orlando. The research examined the diagnostic timeline and predictors of diagnostic delay in women age 40 and younger throughout Canada. Part of the ongoing RUBY (Reducing the Burden of Breast Cancer in Young Women) program, it is thought to be the largest study of its kind and the first to identify potential causes of diagnostic delay in this patient population.

Investigators found that a significant number of young women who experienced breast symptoms postponed medical guidance for more than four weeks after the onset of symptoms. The study defined this as a patient delay. Only a few experienced diagnostic delays clearly attributable to the medical system. A medical system delay was defined as a wait of more than three weeks for evaluation of a complaint by any physician. Most often the first encounter was with a family doctor.

“Pre-menopausal breast cancer is uncommon, but accelerating the diagnostic timeline is extremely important,” says lead study author Katherine Fleshner, MD, a resident at the University of Calgary. “In part, because young women typically do not undergo regular screening mammography and because the disease is rare in this population, patients are usually diagnosed at a later stage than older patients. They may ignore or dismiss their concerns early on. However, their cancers also usually are more aggressive. So seeking medical care is important.”

Dr. Fleshner also points out that while women with complaints typically are seen by physicians in a timely fashion, little is known about the early diagnostic process. “Some primary care physicians may have difficulty teasing out which symptoms truly need a workup, in part because most young patients present with benign complaints,” she says. “Additionally, potentially some early cancers may be

misdiagnosed, or patients who believe they were misdiagnosed may actually have experienced a benign issue and an unrelated cancer develops later on.”

Given this, Dr. Fleshner stresses that young women should seek follow up care for any breast problem that persists. “Even if you have seen a physician, don’t dismiss an ongoing abnormality,” she says. “Advocate for yourself to ensure you get the help you need.”

The new study examined a cohort of 1148 patients enrolled in the RUBY investigation, which collected patient self-reported data with a five year follow up. This study analyzed surveys completed from 2015 to 2022. Median participating patient age was 37 years. The majority of patients (89%) presented with a symptom, of which 77.3% had a palpable mass. The median wait time before seeking assessment was two weeks. However, about one third of patients waited for more than four weeks to seek care.

Reasons for delay included lack of concern, waiting for the next menstrual cycle, reassurance from another practitioner, difficulty accessing care and competing priorities. Practitioner reassurance included informal advice from family or friends in the medical field as well as a regular physician visit that did not diagnose the problem.

On multi-variable analysis, a painful lump and a first-degree relative with a history of breast cancer were independent predictors of patient delay in seeking care. Breast pain is generally considered benign. Delay due to family history aligns with existing literature and potentially may be a result of patient fear or denial.

In this study, once a concerning symptom was recognized by a physician, only 10% of patients experienced a delay in further care.

“Our study points out the need for greater patient and physician education,” comments Dr. Fleshner. “Breast cancer can and does occur in young women, and finding it as early as possible is an important step towards cure.”

Diagnostic Delay Among Young Women with Breast Cancer

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Background/Objective

Breast cancers in young women ≤ 40 represent only 5% of new cases each year in Canada, but often have worse outcomes compared to older women. It is not well-understood how young women with breast cancer initiate contact with care or what their diagnostic journey entails, therefore we aimed to describe the diagnostic timeline among a cohort of women ≤ 40 and identify predictors of diagnostic delay. We hypothesized that most young women with breast cancer will present with symptoms, and that there will be a significant delay to diagnosis due to patient factors.

Methods

Patients enrolled in the Reducing the Burden in Young Women with Breast Cancer (RUBY) study comprised our cohort. RUBY is a pan-Canadian study of over 1500 women ≤ 40 enrolled at the time of diagnosis and followed for 5 years. Multiple online surveys were distributed at the time of diagnosis. Patient-reported data including demographics, personal/family history, presenting symptoms, reasons for seeking care, timeline to diagnosis and perception of the process were captured. All subjects with completed surveys from 2015-2022 were included. Survey data were extracted and presented with descriptive statistics. A “patient delay” was considered > 4 weeks from onset of symptoms to first contact with the healthcare system, given that patients might wait a menstrual cycle to see whether their concerns would resolve. A “system delay” was considered > 3 weeks from time of presentation to care to time of first imaging test, based on Canadian Partnership Against Cancer guidelines. We then conducted a multivariate regression analysis to determine predictors of patient and system delay.

Results

A total of 1148 patients were included for analysis. Median age (IQR) was 37 (33.9, 39.0). Four hundred and twenty-three patients (36.8%) had a first-degree relative with cancer. A majority of patients (89.0%) had a symptom prompting assessment, the majority of which had a palpable mass (77.3%). Patients waited a median of 2 weeks before seeking care, and about one-third (364 patients) experienced a patient delay. Reasons for patient delay included lack of concern, waiting a menstrual cycle, reassurance by another practitioner, difficulty accessing care, and competing priorities. Only 10.1% experienced a system delay. On multivariable analysis, there were no independent predictors of system delay, but having a painful lump as the presenting symptom and having a first-degree relative with breast cancer were independent predictors of patient delay.

Conclusions

Young women with breast cancer often present with symptoms. Most undergo timely investigation; however, a significant proportion experience diagnostic delay, most often related to patient factors. Our

findings align with the existing literature demonstrating significant patient delay and a higher incidence of delay in those with a positive family history, but, to the best of our knowledge, our study is the largest conducted to date and the first to report reasons for delay in young women. Our study emphasizes that more education is needed to raise awareness of concerning symptoms for patients and practitioners. Further research is also required to elucidate whether diagnostic delay in young women negatively impacts survival.

Table 1: Summary of Key Findings

Category	Frequency (%)
Age (median (IQR))	37.0 [33.8,39.0]
Marital Status	Divorced/Separated 50 (4.4) Married/Common Law 871 (75.9) Single 227 (19.8)
Highest Education Level	College or technical school 311 (27.1) High school diploma 138 (12.0) Post-Graduate degree 689 (60.0)
Occupation	Full-time 668 (58.2) Part-time 203 (17.7) Not working 277 (24.1)
Household Income, per year	Less than 25,000 50 (4.4) \$25,000 to \$75,000 267 (23.3) \$75,000 to \$150,000 459 (40.0) Greater than 150,000 250 (21.7) I do not wish to disclose 122 (10.6)
First Degree Relative with Cancer	Yes 423 (36.8) No 725 (63.2)
Comorbidities	1 or more comorbid conditions 654 (57.0) None 494 (43.0)
Breast Cancer Detection	Symptom 1022 (89.0) Incidental finding 7 (0.6) Routine breast examination 27 (2.4) Routine Screening 90 (7.8) Other 2 (0.2)
Symptoms Reported*	Painless Lump 516 (50.7) Painful Lump 208 (20.4) Breast Pain 36 (3.5) Nipple Discharge 27 (2.7) Skin Changes/Nipple Inversion 34 (3.3) Multiple Symptoms 197 (19.4)
Number of Weeks Waited Before Seeking Care (median (IQR))	2.0 (1.0, 8.0) Patient Delay (>4 weeks) 364 (31.7)
Reasons for Patient Delay	I had difficulty accessing timely care 37 (3.6)