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Patient and disease pre-operative factors influencing surgical procedure choice for breast cancer treatment

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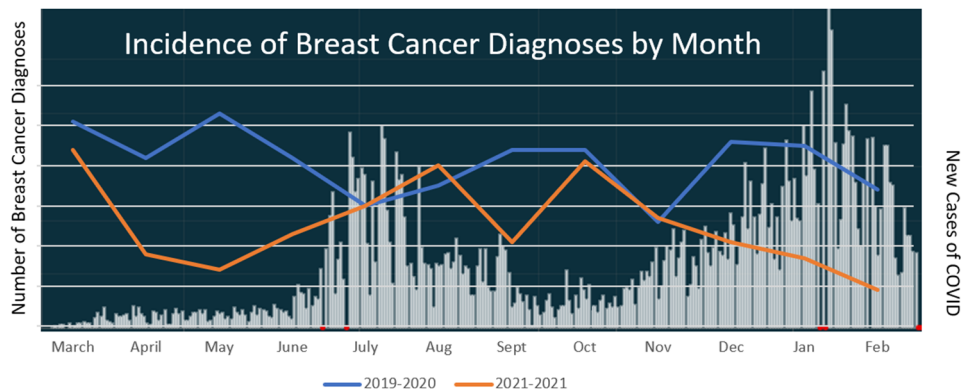
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Figure. Incidence of breast cancer diagnosis and new COVID cases

1147200 - Patient and disease pre-operative factors influencing surgical procedure choice for breast cancer treatment

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Background/Objective: To address disparities of care in breast cancer treatment, it is important to understand pre-operative factors that could affect the surgical decision-making process.

Methods: This prospective cohort study evaluates patient-reported outcomes in women undergoing breast cancer treatment at a metropolitan health care system. Each new breast cancer case undergoes tumor board discussion, and patients have same-day consultations with various specialties. Based on their procedure choice, women choose to complete pre- and post-operative Breast-Q[®] Breast-conserving Surgery (BCS), Mastectomy (M), or Reconstruction[®] modules and demographic surveys. Individual effects of pre-operative factors on procedure choice were assessed using ANOVA for continuous variables and chi-squared for categorical. Significant factors ($p \leq 0.05$) were added to a multinomial logistic regression model.

Results: A total of 375 women completed pre-operative surveys (BCS=244, M=39, BR=92). Compared to BR, those chose BCS were older (RRR=1.094, $p < 0.001$) with larger BMIs (RRR=1.094, $p = 0.001$), without a history of breast cancer (RRR=0.130 (yes vs. no), $p = 0.016$), and Stage I disease (RRR=4.920, $p < 0.001$). Women making more than \$200K (RRR=4.56x10⁵ (vs. 35K), $p < 0.0001$) were also more likely to undergo BR. Compared to BCS, women undergoing neoadjuvant chemotherapy (RRR=3.591, $p = 0.047$) and Stage II disease (RRR=4.238, $p = 0.040$) were more likely to undergo mastectomy alone, whereas race, education, employment, and most incomes did not correlate with procedure choice.

Conclusions: Our data suggest that racial and socioeconomic disparities in procedure type can be addressed by presenting equally effective surgical strategies to all patients in a multidisciplinary model that allows patients to interact with plastic surgeons, radiation oncologists, and surgical and medical oncologists.