USPSTF Breast Cancer Screening Guidelines in a County Hospital System: Is it time to re-evaluate screening initiation age in minority women?

Grace Lee, MS; Sonam Kapadia, MD; Albert Lee, MD; Christine Dauphine MD; Junko Ozao-Choy, MD

Poster ID# 778849
Email: Gelee@mednet.ucla.edu

We do not have relevant financial relationships with commercial interests that pertain to the content of our presentation
Tumor volume was calculated using the ellipsoid volume formula

\[ TV = \frac{4}{3} \pi \times \frac{W \times L \times H}{6} \]

Tumor volumes among Black patients significantly larger than in White patients. Median tumor volume: 2.96 cm³

Apply the USPSTF, ACS & ACR screening guidelines to understand

Median age 55, 70% patients age 50+, majority patients Hispanic

Hispanic

• Apply the USPSTF, ACS & ACR screening guidelines to understand screening rates at our institution and theoretical effect of different screening guidelines on breast cancer diagnosis in an urban, diverse and medically underserved population

METHODS

• Retrospective review of all female breast cancer patients diagnosed between 2014-2016 from a single institution

• Demographics, tumor characteristics, radiographic findings & surgical interventions evaluated

• Tumor volume was calculated using the ellipsoid volume formula (TV=(pi/6)*W*L*H) & mammogram used to determine whether patients would have been diagnosed by screening mammography at time of diagnosis; visible lesions 1 cm or greater considered detectable

RESULTS

• 204 patients total cohort:
  - Median age 55, 70% patients age 50+, majority patients Hispanic
  - Median tumor volume: 2.96 cm³
    - Median invasive breast cancer tumor volume: 3.32 cm³
    - Tumor volumes among Black patients significantly larger than in White patients

OBJECTIVE


REFERENCES

• Non-white women are diagnosed with breast cancer at younger ages and/or with more advanced disease compared to white women1,2

• Discrepant recommendations on screening initiation ages between 40-50 years & no recommendations account for race/ethnicity

• Early breast cancer screening proposed for non-white populations may be adversely affected by current screening guidelines3

DISCUSSION

% diagnosis by screening increased from 45% to 98% among pts 50+ with ‘perfect’ USPSTF screening

- 37% → 69% diagnosis by screening all ages

• ACS screening: 98% diagnosis by screening among pts 45+
  - 80% diagnosis by screening all ages

• ACR screening: 96% diagnosis by screening pts 40+
  - 86% diagnosis by screening all ages

CONCLUSIONS

- Applying these lower age limit screening guidelines to our breast cancer patients in a diverse, medically underserved setting increased the theoretical detection rate by 33%, 44% & 49%

- Future studies needed to re-evaluate which screening guidelines to follow in large health care systems that serve predominantly minority patients, and to evaluate cost vs. benefit of earlier screening