GLP-1 Agonists and Breast Cancer Outcomes: Emerging Advancements in Metabolic Oncology

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Background

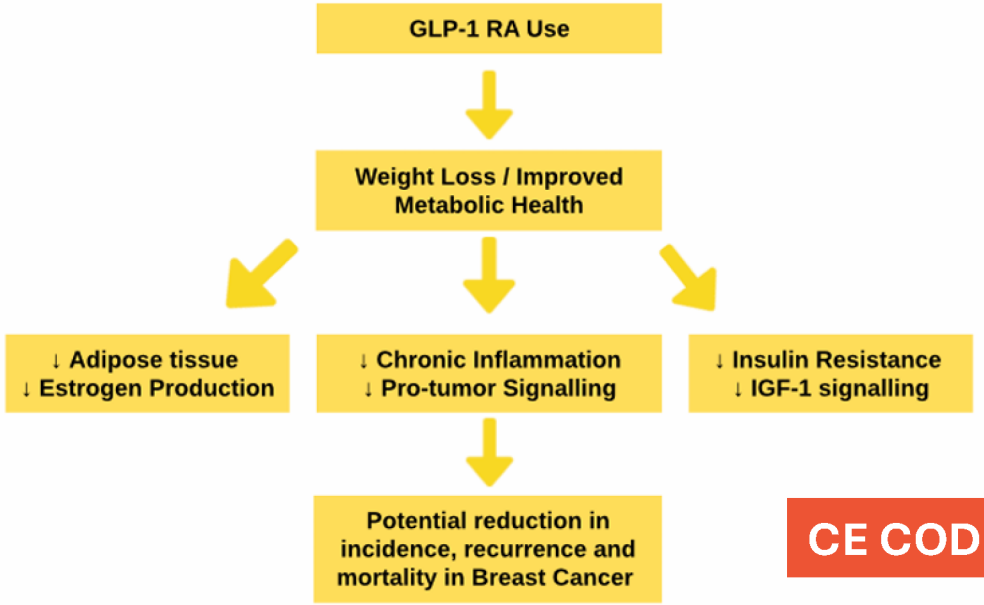
Breast cancer is the most diagnosed cancer among women. Obesity and metabolic syndrome are associated with an increased risk of breast cancer incidence, recurrence and mortality. GLP-1 Receptor agonists (GLP-1 RAs) are prescribed to treat type II diabetes and obesity, and may improve breast cancer outcomes through anti-inflammatory and immunomodulatory effects.

Objective

Explain how GLP-1 receptor agonist-mediated metabolic pathways, including inflammation reduction and adipose-related estrogen modulation, may influence breast cancer incidence, recurrence-free survival, and overall survival. (P/T)

Methods

A literature review was carried out wherein evidence was extracted from a variety of sources and associations between GLP-RA use and breast cancer incidence, recurrence-free survival, overall survival and proposed metabolic mechanisms involving obesity, inflammation and estrogen production were evaluated.



Discussion

GLP-1 RA use may reduce progression from early-stage to metastatic breast cancer through weight loss, improved insulin sensitivity, reduced inflammation, and lower estrogen production. Emerging evidence also suggests direct antiproliferative effects and a lower incidence of breast cancer among users.

Results / Conclusion

- ~30% lower breast cancer incidence reported with GLP-1 RA use.
- Associated with lower mortality, improved recurrence-free survival, and reduced metastatic progression.
- Most common adverse effects were gastrointestinal.
- Findings support further investigation of GLP-1 RAs in breast cancer prevention and outcomes.

Disclosure

- There are no relevant conflicts of interest to disclose for this presentation for the following planners of this CE activity:
  - **Ariel Hughes, PharmD**
  - **Neil Ryan, BPharm, MPharm, MPSI**
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References