Title:
Connecting Links for Reducing Risks: Understanding the Impact of Obesity on Cancer Development

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Session Title:
Effects of Obesity in Health

Slot:
H 14: Monday, 30 October 2017: 2:45 PM-3:30 PM

Scheduled Time:
2:45 PM

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Keywords:
cancer, obesity and pathogenesis

References:


Abstract Summary:
There are several factors related to obesity which are linked to the development of cancer. Advanced Practice Nurses need to be apprised of the evidence surrounding obesity and cancer development in order to develop novel strategies for weight reduction and increased physical activity for reducing the incidence of cancer diagnoses.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner will be able to recognize the burden of cancer incidence in relation to obesity.</td>
<td>Current evidence concerning obesity and its link to cancer development will be explored, including epidemiology of obesity and cancer.</td>
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<tr>
<td>The learner will be able to discuss modifiable risk factors for reducing obese related malignancy</td>
<td>The importance of maintaining an ideal BMI and the need for physical activity will be disseminated. Strategies for reducing modifiable risk factors will be discussed.</td>
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Abstract Text:

The fiscal burden of cancer remains a growing concern in health care, in part related to an increasingly aging population as well as improvements in cancer survivorship. Cancer consistently ranks among the top leading causes of death in the US, with approximately 601,000 cancer related deaths estimated to occur this year (American Cancer Society, 2017). Obesity, which is considered a key driver in serious health conditions such as coronary heart disease and diabetes Discuss modifiable risk factors for reducing obese related malignancy, also presents a significant economic burden for the nation (Bray, 2016; Arnold et al, 2015). While healthcare providers are adept in recognizing how obesity spurs the development of many common chronic conditions, less is known about the link to adiposity and cancer development. In fact, conservative estimates reveal up to twenty percent of all cancer diagnoses can be attributed to obesity (De Pergola and Silvestris, 2013).

Robust findings exist for obesity contributing to colo/rectal, esophageal, renal, breast, endometrial and prostate cancer development (National Institutes of Health [NIH, 2017; Arnold et al, 2015; Pergola and Silvestris, 2013) Likewise, gallbladder, liver, gastric, pancreas, ovarian, thyroid cancers, in addition to meningioma and multiple myeloma, have shown links to obesity (NIH, 2017; Lauby-Secretan et al, 2016; Arnold et al., 2015; Pergola and Silvestris, 2013). Further, recent advancements in targeted antineoplastic treatment modalities have helped to identify tumor growth regulator variances associated with excess adipose cells (De Porgola et al, 2013). Several effects of adiposity on cancer development have been identified and include hyperinsulinemia with increases in IGF-1 and other pro-inflammatory molecules such as leptin (Garcia-Jimenez et al, 2016; De Pergola and Silvestris, 2013; Parekh et al, 2012;). Lower adiponectin and increased sex hormones are among other key drivers in cancer development and metastasis (De Pergola and Silvestris, 2013; Parekh et al, 2012).

Additional challenges related to obesity and cancer include, but are not limited to therapeutic dosing of chemotherapy and the management of toxicities (Griggs et al, 2012). In addition to increased cancer development rates, cancer recurrence and survival rates are adversely effected by obesity (Arnold et al, 2015). Advanced Practice Nurses (APRNs) are challenged to meet growing healthcare demands. APRNs are uniquely positioned to provide novel strategies for weight reduction and increased physical activities for improving patient outcomes and reducing the incidence of cancer diagnoses. With mounting evidence linking obesity as a major contributor for developing certain cancers, equipping healthcare providers and the public alike, with this powerful knowledge regarding obesity and its links to cancer, can prove to be one of the greatest modifiable risk factors known. This may prove to be as significant as smoking cessation efforts were on reducing the incidence lung cancer.