

## Understanding the Smoking-Breast Cancer Link: A Call for Awareness and Research

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Dear Sir,

Breast cancer remains the most prevalent cancer diagnosed in women worldwide, recording over 2.26 million new cases in 2020<sup>1</sup>. In Pakistan alone, approximately 178,388 new cases were reported in the same year<sup>2</sup>, highlighting the significant impact of this disease on a global and national scale. Breast cancer ranks as one of the foremost causes of cancer-related deaths in women worldwide. Although the exact origin of this cancer type remains uncertain, a blend of genetic predisposition, hormonal influences, environmental elements, and lifestyle choices is thought to play a role in its onset<sup>1</sup>.

In recent years, numerous scientific studies have established a strong link between smoking and the development of breast cancer, shedding light on the importance of understanding this harmful association. The study by Gaudet et al. suggests that active smoking, particularly before a woman's first childbirth, could potentially elevate the risk of initiating breast cancer<sup>3</sup>. Other researchers have also supported this hypothesis, finding that women who actively smoke cigarettes have a slightly higher risk of developing breast cancer. Although the exact cause of how smoking leads to breast cancer isn't fully understood, it's believed that the chemicals present in cigarette smoke can damage DNA, disrupt normal cell function, and potentially increase the risk of cancerous cell growth in breast tissue. Moreover, the use of smoking products, notably nicotine, might impact hormone

levels, particularly estrogen, potentially playing a part in the emergence of breast cancer.

Cigarette smoking and tobacco use have been conclusively linked to various cancers, particularly lung cancer, contributing significantly to about a third of all cancer-related deaths, as cigarette smoke comprises 7,000 chemicals, among which there are 69 identified carcinogens<sup>4</sup>. A recent study conducted by Basit A, et al. highlights a worrying trend in female smoking habits in Pakistan, revealing that over 7 percent of women in the country are daily smokers<sup>5</sup>. This high prevalence of smoking among women and the increasing rate of breast cancer in Pakistan necessitate a thorough study to explore any potential link between the two. In-depth studies that further explore the connections between smoking and breast cancer are essential for advancing research and enhancing our understanding of the realm of health.

Furthermore, raising awareness about the smoking-breast cancer link is crucial. It's essential to inform individuals, especially young women, about the potential risks associated with smoking and its impact on breast health. Empowering communities with this knowledge can prompt lifestyle changes, encouraging smoking cessation and reducing exposure to both active and passive smoke.

Raising awareness and conducting research isn't just about health it's a call for action. Governments, healthcare groups, and researchers need to invest in exploring and educating people about the link between smoking and breast cancer. This effort could significantly improve women's health worldwide by preventing and addressing breast cancer more effectively.

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