



The Harmful Synergy of Smoking and Excess Weight: Atherosclerotic Effects

Pooja Gupta*

Department of Biotechnology, Kalinga Institute of Industrial Technology, India

Introduction

Atherosclerosis is a chronic inflammatory disease that affects the arterial walls, leading to the accumulation of fatty plaques and a reduction in blood flow. Smoking and excess weight are two major risk factors for atherosclerosis, and they can have significant adverse effects on cardiovascular health.

Smoking is a well-known risk factor for atherosclerosis, as it causes damage to the inner lining of blood vessels, promotes the accumulation of fatty deposits, and increases the risk of blood clots. Smoking also reduces the levels of good cholesterol, which helps to remove bad cholesterol from the blood vessels [1].

Excess weight, especially abdominal obesity, is another significant risk factor for atherosclerosis. Excess body fat can lead to the development of insulin resistance and inflammation, which in turn can lead to the accumulation of fatty deposits in the arterial walls. Furthermore, excess weight can also lead to high blood pressure and abnormal lipid profiles, which are additional risk factors for atherosclerosis.

Together, smoking and excess weight can have a synergistic effect on the development of atherosclerosis, increasing the risk of cardiovascular disease, stroke, and other serious health complications. Therefore, it is important to maintain a healthy weight, quit smoking, and adopt other healthy lifestyle habits to reduce the risk of atherosclerosis and improve overall cardiovascular health [1,2].

Description

Smoking is a major contributor to atherosclerosis because of its ability to damage the endothelial cells that line the inner walls of blood vessels. The damage caused by smoking triggers an inflammatory response, which attracts white blood cells to the area. Over time, these cells can accumulate in the arterial wall and form fatty deposits known as plaques [3].

Additionally, smoking causes an increase in blood clotting factors, which can lead to the formation of blood clots that can obstruct blood flow through the arteries. This can cause a heart attack or stroke if the clot blocks a critical blood vessel.

Excess weight, particularly abdominal obesity, is also a significant risk factor for atherosclerosis. Fat cells release cytokines and other inflammatory molecules that contribute to chronic inflammation throughout the body. Inflammation can damage the endothelial cells and promote the formation of fatty plaques.

Abdominal obesity is also associated with an increased risk of insulin resistance and type 2 diabetes. These conditions can further damage the endothelial cells and promote inflammation, leading to an increased risk of atherosclerosis [4].

It is important to note that the effects of smoking and excess weight on atherosclerosis are not independent of each other. Studies have shown that the combination of smoking and obesity has a more significant impact on atherosclerosis than either risk factor alone.

Fortunately, adopting healthy lifestyle habits can help reduce the risk of atherosclerosis. Quitting smoking, maintaining a healthy weight, and engaging in regular physical activity are all effective strategies for reducing the risk of atherosclerosis and improving cardiovascular health. Eating a healthy diet, managing stress, and getting adequate sleep are also important factors in reducing the risk of atherosclerosis [4,5].

Conclusion

Smoking and excess weight are major risk factors for atherosclerosis and can have significant adverse effects on cardiovascular health. Smoking damages the endothelial cells, promotes the formation of fatty plaques, and increases the risk of blood clots. Excess weight, particularly abdominal obesity, promotes chronic inflammation, insulin resistance, and abnormal lipid profiles, all of which contribute to the development of atherosclerosis.

The effects of smoking and excess weight on atherosclerosis are not independent of each other, and their combined impact on cardiovascular health is significant. Therefore, it is important to adopt healthy lifestyle habits such as quitting smoking, maintaining a healthy weight, engaging in regular physical activity, eating a healthy diet, managing stress, and getting adequate sleep to reduce the risk of atherosclerosis and improve overall cardiovascular health. Taking these steps can help prevent serious health complications and improve quality of life.

Acknowledgement

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Conflict of Interest

None

References

- Eckel RH, Grundy SM, Zimmet PZ (2005) The metabolic syndrome. *Lancet* 365: 1415-1428.
- Grundy SM, Brewer HB Jr, Cleeman JI, Smith SC Jr, Lenfant C, et al. (2004) Definition of metabolic syndrome: Report of the National Heart, Lung, and Blood Institute/American Heart Association conference on scientific issues related to definition. *Circulation* 109: 433-438.
- Helvacı MR, Seyhanlı M (2006) What a high prevalence of white coat hypertension in society!. *Intern Med* 45: 671-674.

*Corresponding author: Pooja Gupta, Department of Biotechnology, Kalinga Institute of Industrial Technology, India, E-mail: Pooja_G@hotmail.com

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4. Franklin SS, Barboza MG, Pio JR, Wong ND (2006) Blood pressure categories, hypertensive subtypes, and the metabolic syndrome. *J Hypertens* 24: 2009-2016.
5. O'Brien E, Asmar R, Beilin L, Imai Y, Mallion JM, et al. (2003) European Society of Hypertension recommendations for conventional, ambulatory and home blood pressure measurement. *J Hypertens* 21: 821-848.