Opinion*Copyright © All rights are reserved by Sabina Khanam*

Impact of Psychological Stress on Cancer

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Psychological stress has been one of the key factor for the initiation of cancer and metastasis in body cells. Behavioural abnormalities such as chronic psychological stress, depression, anxiety and other behavioural changes have been linked to cell mediated immunity and to endocrine system consequences. The aim of this review article is to describe how psychological stress activate neuroendocrine system and tumor initiation, which leads to cancer and metastasis.

Keywords: Stress; Cancer; Endocrine**Introduction**

Cancer is the second leading cause of death after cardiovascular diseases globally. Clinically and epidemiologically cancer have been related to chronic psychological stress, depression, anxiety, lack of social support and other behavioural and psychological factors. Poor apoptotic activity of the body cells, poor repair of damaged nucleic acid like DNA and RNA and abnormal exchange of chromatid may due to psychological stress. Psychological stress may affect various physiological activities of the body cells and various pathological diseases like cancer [1-5]. Immunosuppressed individuals either through immunodeficiency diseases or through pharmacological means have more risk of cancer. T-cell responses to mitogen stimulation and natural killer (NK) cell cytotoxicity are cellular immune parameters have been decrees by chronic psychological stress which leads to cancer. Psychological and behavioural abnormalities like anxiety, depression, stress leads to tumor growth, metastasis and progression [6-12].

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Some studies demonstrated that chronic psychological stress activate the hypothalamic-pituitary-adrenal axis and central

sympathetic nervous system which increase the quantity of cortisol and norepinephrine (catecholamines) in the body organs which enhance the ovarian carcinoma by increasing the weight and progression of the tumor. Stress may affect carcinogenesis through changes or alterations in the DNA molecule repair and exchange of sister chromatid [13,14]. When all these processes do not work properly than faulty or unprepared DNA might increase the risk of cancer.

Acknowledgement

None.

Conflict of Interest

No conflict of interest.

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