

Nitric oxide and antioxidant status in head and neck carcinoma before and after radiotherapy

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The mainstay of treatment of head and neck squamous cell carcinoma (HNSCC) is radiotherapy which acts by producing free radicals. Therefore, this study was planned to observe the effect of radiotherapy on oxidative stress in patients of HNSCC. This study was conducted on 50 histopathologically proven cases of HNSCC. The levels of nitric oxide, glutathione-S-transferase and vitamin C were estimated colorimetrically before and after treatment in patients and in 30 age and sex matched healthy controls. The results were compared statistically. The levels of nitric oxide and glutathione-s-transferase were significantly higher in patients as compared to controls and further increased significantly after treatment. Vitamin C levels were significantly lower in patients as compared to controls and decreased significantly after treatment. HNSCC leads to increased oxidative stress and treatment in the form of radiotherapy, itself, produces an accentuation of this stress.

Biography

Kiran Dahiya did her MBBS and M.D. (Biochemistry) from Pt. B.D.S. PGIMS, Rohtak, Haryana. Presently, she is working as Associate Professor in the Department of Biochemistry, Pt. B.D.S. PGIMS, Rohtak, Haryana. There are around 36 national and international publications and a practical Biochemistry book to her credit. She has reviewed numerous papers and is on the editorial board of *American Journal of Cancer Therapy and Pharmacology*.