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**Original article:**

**Adenosine deaminase(ADA) activity in relation to oxidative stress in lymphatic filariasis in an endemic area**

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**Abstract:**

Lymphatic filariasis is a major public health problem affecting about 119 million people all over the world. India has a significant share in it with 48 million people harbouring microfilariae and suffering from disease manifestations. Being a characteristic debilitating disease, it causes little direct mortality but provokes a spectrum of clinical symptoms. Hence the present study was undertaken to evaluate oxidative stress and antioxidant status along with adenosine deaminase activity to know the cell mediate immunity in the lymphatic filarial cases in an endemic area.

1. The Malondialdehyde values in lymphatic filariasis were found to be significantly high compared to the levels of endemic normal. This observation indicated the existence of oxidative stress in lymphatic filariasis.

2. The enzyme Superoxide Dismutase (SOD) activity was found to be significantly low in lymphatic filarasis compared to endemic normals.

3. The antioxidant vitamin C concentration was significantly low in lymphatic filariasis compared to endemic normals. This imbalance between pro and antioxidant processes observed, this might pla a role in the pathology associated with lymphatic filariasis.

4. Adenosine Deaminase activity in lymphatic filariasis was significantly high compared to endemic normal, attributed to more differentiated lymphocytes in the cell mediated immune response occurring in lymphatic filariasis.