Aim of the study

Based on literature, it was hypothesized that suppression of hyperactivated signaling and oxidative stress by using antioxidants may inhibit cancer progression. Fruits, vegetables and certain spices are good sources of antioxidants. The use of complementary and alternative medicines with natural herbal products or extracts in cancer therapy is acquiring importance owing to their less or no side effects.

To validate the hypothesis, present study was aimed to investigate the mechanism of anticarcinogenic action of QUE in regulation of oncogenic PI3K-AKT signaling during lymphoma (Dalton’s lymphoma) growth in mice.

Objectives

1. To study the effect of QUE in lymphoma bearing mice on
   i. Morphological change and life span (longevity)
   ii. Apoptosis and oxidative stress
   iii. PI3K and PKC signaling pathways
2. To study anticarcinogenic action of QUE on HepG2 cells
3. To analyze ROS mediated modulation of PI3K-AKT signaling pathway *in vitro*
4. To study the molecular mechanism of PI3K dependent modulation in ROS induced ascite cells and impact of QUE