Calmodulin Antagonists as Potential Therapeutic Agents for Cancer Treatment "Breast Cancer"

ABSTRACT

Although cancer research undergone a rapid expansion, there is no potential cure and the disease remains one of the leading causes of mortality worldwide. Breast cancer continues as the female malignancy and a major cause of death in middle-aged women. Calmodulin can interact with large number of different target proteins and modulate their activity in different ways. Calmodulin antagonists have been reported to induce apoptosis and inhibit tumor cell growth. However, the potential effects of these target agents on various cancer within the molecular levels are poorly understood. The main objective of this study is to evaluate the potency of a number of calmodulin antagonists on the growth of human breast cancer cell lines. In addition, preliminary trials were carried out to find the role of these agents within the molecular levels. The finding indicates that Calmodulin antagonists might be the key for future breast cancer treatment strategy.