Complementary and alternative medicine in cancer prevention and therapy.

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Although there have been great achievements in the battle against cancer over the past decades, cancer is still the leading cause of death in developing countries like China. Complementary and alternative medicine (CAM), especially traditional Chinese medicine (TCM), usually having good clinical tolerability, is applied as an adjuvant therapy to treat cancer in China based on TCM or modern pharmacological theories. In the west, CAM has increasingly become popular in cancer patients. It is estimated that the United States National Cancer Institute (NCI) spends around $120 million each year on complementary and alternative medicine related research projects. However, a fact is that although a lot of CAMs are widely used clinically, most evidence supporting their use came from poorly reported published clinical studies or studies with questionable methodology. Call for high quality evidence is a mission of this special issue.

This edition also includes a review that discusses the possibility of TCM as maintenance therapy for advanced nonsmall cell lung cancer. The review concludes that TCM
as maintenance therapy can improve the QOL and prolong the PFS of advanced NSCLC patients. Besides, TCM can be applied for NSCLC patients not limited in population selection. However, there are only small sample clinical trials about TCM as maintenance therapy for advanced NSCLC. More large-scale trials of TCM as maintenance therapy for advanced NSCLC are expected.

For experimental study, A. Movahedi et al. investigated the capability of the decoction of *Teucrium polium* L. from Lamiaceae family to protect liver cells against hepatocellular carcinoma in carcinogenesis-induced animal model. After 28 weeks of treatment, they found that serum biochemical markers (ALT, AST, AFP, GGT, ALP, HCY, TNF-α, α2MG, and CBG), total antioxidant status, liver lesion, and glucocorticoid activity were all regulated auspiciously by *Teucrium polium* L. Y. Lin et al. studied that elemene, a compound found in an herb used in traditional Chinese medicine, has the effect of protecting cancer cells from death either in apatinib induced nutrient deficient environment or in serum-free induced starvation. Further data on the mechanism study revealed that elemene induced protective autophagy and prevented human hematoma cancer cells from undergoing apoptosis.

In addition to the mentioned papers above, other studies included in this issue provide sufficient scientific evidence from CAM research to clarify their mechanism of action and demonstrate their efficacy and safety. Through the rigorous researches, the benefits of CAM therapies will be highlighted, and this will support the clinical use of CAMs and help integrating CAM into the mainstream medicine. We hope that this special issue informs us about the rationale use of CAM in cancer prevention and therapy. We also hope that the papers included in this issue play a role in reflecting the recent advancement in the field of CAM.

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