

8th Euro Global Summit on Cancer Therapy

November 03-05, 2015 Valencia, Spain

The inhibition effect and apoptotic mechanism of trichosanthin on SU-DHL-2 lymphoma cells

Ou Sha¹, Ying-Jie Zhu², Yue-Li Sun² and Wen-Qi Jiang^{1,2}

¹Shenzhen University, People's Republic of China

²Sun Yat-sen University Cancer Center, People's Republic of China

In the past decades, many studies have revealed that Trichosanthin (TCS), a purified traditional Chinese medicine, exerts anti-tumor activities by inducing apoptosis in different tumor cell lines. However, little is known about the effects of TCS in lymphoma. The aim of this research was to study the *in vitro* effects of TCS on various lymphoma cells and the relative mechanisms. A variety of methods were employed including cell culture of 13 lymphoma cell lines, MTT assay, western blotting, flow cytometry, immunostaining, confocal, etc. Our results showed that TCS inhibited the proliferation of thirteen lymphoma cell lines in a dose-dependent manner, while SU-DHL-2 cells were the most sensitive to TCS. SU-DHL-2 cells exposed to TCS led to cell arrest at the S to G2/M phase transition. Furthermore, flow cytometric analysis, Hoechst 33258 staining and western blotting disclosed that TCS-induced apoptosis of SU-DHL-2 cells in time- and concentration-dependent manners. Further studies showed that inhibition of caspase-8 and caspase-9 with pharmacological inhibitors reduced TCS-induced apoptosis. Caspase-8 inhibitor could completely reverse TCS-induced apoptosis. However, caspase-9 inhibitor only had partial reverse effect. Taken together, our findings firstly provided powerful evidences that TCS could induce apoptosis of SU-DHL-2 cells through both extrinsic and intrinsic pathways.

shaou@szu.edu.cn

Treatment of colorectal cancer in China: Epidemiology, modern reality and ways of solving problems

Jin Gu

Beijing Cancer Hospital & Institute, PR China

Colorectal cancer (CRC) is the third most common cancer worldwide. Compared with a drop in western countries, the incidence of CRC is increasing in China for the past decade. Due to the lack of national registry system, data concerning CRC in China could only be estimated. Due to socio-economic disparities, such as medical conditions and skill levels, there is a wide variation in treating CRC. National Comprehensive Cancer Network (NCCN) guidelines and domestic guidelines are widely accepted by most oncologists. An update of "National Guideline of colorectal cancer treatment" is coming in 2015, which will bring in new breakthroughs from developed countries balanced with national reality. The implementation of these guidelines will provide a higher standardization of the treatment of CRC nationwide and will ensure that higher quality care will be available, especially in rural areas. International communications shorten the gaps between Chinese colorectal surgeons and their foreign colleagues. Continuous medical education policy has been advocated by the government, with regular tours of specialists and training program of multidisciplinary team. In this presentation, the current situation regarding CRC epidemiology, surgical treatment of rectal cancer and strategy to solve problems summarized.

zlgujin@126.com

Notes: