

15th International Conference on

Pediatrics and Pediatric Cardiology

February 19-20, 2018 | Paris, France

Novel protective effects of baicalin on high-glucose induced chick embryo malformation and its molecular mechanisms

Jian-xin Liang, Lin-rui Gao, Li-guo Chen, Guang Wang and Xue-song Yang
Jinan University, China

Baicalin, which is a traditional Chinese monomer isolated from a traditional Chinese tocolysis medicine - baikal skullcap root, has shown the ability of antioxygenation. Here, we investigated for the first time whether baicalin treatment could improve the high-glucose induced chick embryo malformation and uncovered its underlying mechanisms. In our study, we found certain concentration of baicalin did not affect the development of early chick embryo. The number of high-glucose induced heart tube and blood island malformation in chick embryos were decreased in baicalin treating. Western blot analysis of the experimental chick embryos revealed that GATA4 was inhibited, while LC3 α and C-caspase3 were increased following high glucose treatment. However, baicalin treatment could improve the expression of these genes. In addition, we confirmed that the baicalin could improve the cell survival through both antioxygenation and regulating autophagy in vitro. Therefore, our data indicated that baicalin could be a potential candidate for gestational diabetes induced malformation.

545054487@qq.com