



Increased survivin expression and its association with clinical parameters of congenital choledochal cysts

Z.G. Wu^{1,2}, G.X. Li¹, B. Wang², Z.M. Chen² and Q. Feng²

¹Department of General Surgery, Nanfang Hospital, Southern Medical University, Guangzhou, China

²Department of General Surgery, Shenzhen Children's Hospital, Shenzhen, China

Corresponding authors: G.X. Li / B. Wang

E-mail: snangxl@sina.com / szwb1967@126.com

Genet. Mol. Res. 15 (2): gmr.15028032

Received November 9, 2015

Accepted January 15, 2016

Published June 21, 2016

DOI <http://dx.doi.org/10.4238/gmr.15028032>

ABSTRACT. The aim of the current study was to investigate survivin expression in congenital choledochal cysts (CCCs), and its associations with clinical parameters of CCCs. In total, 121 children with CCCs were included in this study as the case group, and their cysts were staged according to the Todani classification system. Additionally, 49 normal gallbladder specimens from healthy children were included as the control group. Survivin detection was conducted using immunohistochemical staining. Associations between positive survivin expression and clinical parameters of CCCs were then analyzed. Positive survivin expression was observed in the cytoplasm, and was seen as granular with yellow or dark brown staining. In the case group, positive survivin expression was detected in most tissues. Specifically, compared to that of normal tissues, the cystic-shaped and fusiform-shaped CCC tissues had significantly higher positive survivin expression rates (all $P < 0.05$). Importantly, positive survivin expression was also shown to be significantly associated with gender and histological type (both $P <$

0.05). In conclusion, increased survivin expression was observed in CCC tissues, and was correlated with certain clinical parameters of CCCs, suggesting a possible prognostic value of survivin for CCC progression.

Key words: Congenital choledochal cysts; Protein expression; Survivin