



The overexpression of COX 2 in Wilms' tumor

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ARTICLE INFO	ABSTRACT
Article type Review article Article history Received: 1 Jan 2014 Revised: 15 Jan 2014 Accepted: 28 Jan 2014 Keywords Cyclooxygenase Kidney Prostaglandins Wilms' tumor	Cyclooxygenase 2 has become an important pharmacological target in anticancer therapy due to the over expression of COX 2 in pathological conditions. Wilms' tumor is a common kidney cancer in children which has shown an increase in COX 2 enzyme level. Here we reviewed various articles that considered the cyclooxygenase 2 changes specifically in Wilms' tumor regarding the mechanisms of action and inhibitors of COX 2.

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Introduction

During every malignancy there may be various changes in normal gene expression and protein synthesis which lead to functional changes of the affected limb. Cyclooxygenase 2 (COX2) is one of the major enzymes which will be overexpressed in cancers and tumors which consequently lead to the increased in the prostaglandins synthesis. Various evidence have proposed COX2 a major therapeutic target which may be suppressed by using non-steroidal anti-inflammatory drugs (NSAIDs) or

prototypic inhibitors of COX-2 such as celecoxib, rofecoxib. Wilms' tumor is the most common cancer of kidney which primarily affects children kidney (1,2). In this article we aimed to review the literature considered the expression of COX2 in Wilms' tumor.

COX enzyme

Cyclooxygenase (COX) is the key enzyme in charge for the synthesis of prostanoids, consisting of prostaglandins, prostacyclins

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