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A novel approach for the treatment of renal cell carcinoma

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The enhancement in the therapeutic approaches has altered the perception of the world towards the treatment of diseases. Cabozantinib is one such creation of hope for renal cell carcinoma patients. This potent therapy has earned the credence of humankind by giving impeccable positive results in treating advanced cases. A disease that was so life threatening and so dangerous had to surrender in front of science and its advancement. The earlier methods of radiotherapy and chemotherapy which had adverse effects on humans are finally replaced by new drugs, such as cabozantinib. Cabozantinib is an anti-cancer drug that has the capability of inhibiting the action of hepatocyte growth factor receptor (HGFR) and vascular endothelial growth factor (VEGF) receptor 2. This is an FDA approved drug where the prognosis is much better as compared to other drugs. During renal carcinoma, there is a growth of the cancerous cells in the lining of the convoluted tubules, leading to malignancy and metastasis of the cells to different regions of the body, thereby attacking the other organs. This leads to the activation of the signalling pathways within the tumour cells, allowing their proliferation. Cabozantinib works by targeting and binding to the tyrosine kinase receptors, therefore inhibiting the activity of multiple tyrosine kinases and blocking the action of abnormal proteins that signal cancer cells to multiply. Therefore, in this era of rapid development where every alternate researcher is looking for a novel anticancer drug, cabozantinib has effectively acquired a stable position in the race which ensures antitumour activity as well as a high safety level.

Keywords: Renal cell carcinoma, Cabozantinib, Metastasis, Tumour, Tyrosine-kinase inhibitors, Drug therapy

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