

Gallbladder Cancer: Current Treatment Options

A look at emerging therapeutic targets for gallbladder cancer: A multi-omics approach

Baichan, P; Naicker, Previn; Devar, J; Smith, M and Nweke, EE

Abstract

Gallbladder cancer (GBC) is the most frequent biliary tract cancer (including cancers of the intra- and extrahepatic biliary tree). Like many biliary tract carcinomas, GBC is identified by late diagnosis, poor prognosis, and ineffective treatment. Surgery remains the most effective management strategy. Nevertheless, the 5-year survival rate of GBC ranges from approximately 0 to 12%, thus better treatment modalities are required. Over recent years, a multi-omics approach has been implored in the discovery of therapeutic biomarkers. In this chapter, we review known chemotherapeutic drugs used in GBC treatment. Then, we extensively analyze the discovery of several proteins, genes, microRNAs, mutations, metabolites, and microbes whose expressions are dysregulated in GBC. Importantly, we highlight their potential use as therapeutic biomarkers due to their functions in GBC progression. Lastly, we review emerging strategies such as immunotherapy and their potential of improving patient survival.