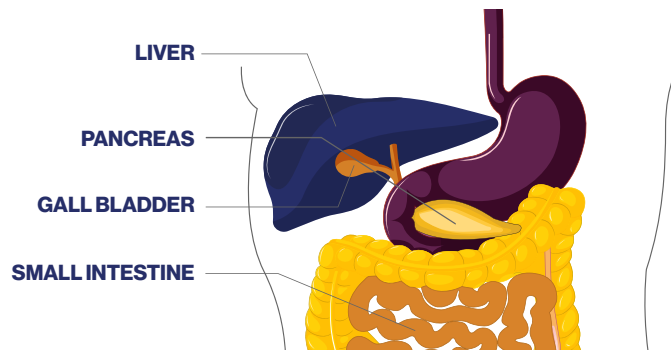


# HER2-Positive Biliary Tract Cancers: What to Know

## BILIARY TRACT CANCERS AND HER2

Biliary tract cancers (BTC) are multiple different types of tumors with distinct molecular characteristics that vary based on their location within the liver, gallbladder and biliary tract.<sup>i,ii</sup>

Many cancers with solid tumors – including BTC – can create too much of a protein known as HER2.<sup>iii</sup>



## WHAT IS HER2?

HER2 is a protein located in all cells that plays an important role in cell growth and survival.<sup>iii</sup> When cancer cells develop with higher-than-normal levels of HER2, they are called HER2-positive.

HER2-positive cancers tend to grow and spread faster than cancers that are HER2-negative and can impact overall prognosis.<sup>iii</sup>

While not everyone diagnosed with a BTC will have HER2-positivity, it is important to test for HER2 expression when determining the appropriate treatment for patients.



In one study, HER2-positivity was found to present in approximately 17 percent of BTC patients.<sup>i, iv, vii</sup>

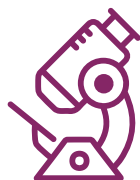


## TREATMENT OPTIONS ASSOCIATED WITH HER2-POSITIVE BTC



Overall, 40% -60% of BTC cases have targetable mutations like HER2.<sup>v,vi</sup>

Considering the rate of HER2 expression in BTC, HER2 is a potential therapeutic target in advanced BTC.<sup>vii</sup>



While there are currently no approved HER2-targeted therapies for BTC, clinical research is underway investigating HER2-targeted therapy as a potential option for these cancers.<sup>iv</sup>



Chemotherapy is still the current standard of care used to treat advanced BTC.<sup>i,ii</sup>

<sup>i</sup> Valle JW, et al. New Horizons for Precision Medicine in Biliary Tract Cancers. *Cancer Discov*. 2017 Sep;7(9):943-962. doi: 10.1158/2159-8290.CD-17-0245. Epub 2017 Aug 17. PMID: 28818953; PMCID: PMC5586506.

<sup>ii</sup> Baria K, et al. Worldwide Incidence and Mortality of Biliary Tract Cancer. *Gastro Hep Advances* 2022;1:618-626.

<sup>iii</sup> Iqbal N, et al. Human Epidermal Growth Factor Receptor 2 (HER2) in Cancers: Overexpression and Therapeutic Implications. *Mol Biol Int*. 2014;2014:852748.

<sup>iv</sup> Galdy et al. HER2/HER3 pathway in biliary tract malignancies: systematic review and meta-analysis: a potential therapeutic target? *Cancer Metastasis Rev*. 2016;36(1):141-157.

<sup>v</sup> Bridgewater J, et al. Prognostic factors for progression-free and overall survival in advanced biliary tract cancer. *Ann Oncol*. 2016;27:134-40.

<sup>vi</sup> Gómez-España MA, et al. SEOM clinical guidelines for pancreatic and biliary tract cancer (2020). *Clin Transl Oncol*. 2021 May;23(5):988-1000.

<sup>vii</sup> Jeong H, et al. Feasibility of HER2-Targeted Therapy in Advanced Biliary Tract Cancer: A Prospective Pilot Study of Trastuzumab Biosimilar in Combination with Gemcitabine Plus Cisplatin. *Cancers (Basel)*. 2021 Jan 6;13(2):161.



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