

Consortium Kick-off Meeting: Building and promoting Excellence in Cholangiocarcinoma Sciences in Portugal

Background

Globally the incidence of cholangiocarcinoma (CCA) is increasing and varies greatly in different regions but the hot spot is in northeast Thailand which has the highest incidence of CCA. Geographically, high incidence of CCA is well correlated with the presence of the liver fluke. Several reviews on risk factors of CCA have often indicated that the liver flukes *O. viverrini* and *Clonorchis sinensis* play a dominant role as a risk factor of CCA in Asia, but specifically in Thailand.

However carcinogenic potential of *O. felineus*, that exists in Europe including Portugal, is still poorly studied.

In addition to liver flukes, other established risk factors include primary sclerosing cholangitis, biliary-duct cysts, hepato-lithiasis, and toxins. Other less-established, potential risk factors include inflammatory bowel disease (IBD), hepatitis C virus (HCV), hepatitis B virus (HBV), cirrhosis, diabetes, obesity, alcohol consumption, smoking, and host genetic polymorphisms.

Photodynamic therapy (PDT) is a local photochemical tumor treatment that consists of a photosensitizing agent in combination with laser irradiation of a distinct wavelength.

PDT has proved feasible in patients with hilar bile duct cancer. Those studies showed an astonishing long survival time of the treated CCA patients.

PDT has been tried as neoadjuvant therapy to reduce preoperative local tumor extent, which showed complete tumor necrosis within a layer of 4–6 mm.

Redaporfin® has been developed for the treatment of solid tumours, where irradiation is feasible by direct illumination PDT (such as melanoma, head and neck cancer, among others) or via endoscopic means (such as biliary tract cancer, endobronchial or bladder cancers, among others). Luzitin® has also developed a laser-based medical device for light delivery through a consumable optical fibre.

Redaporfin has received Orphan Drug Designation (ODD) from EMA in Europe. A pivotal Phase III study is planned. This provides a further opportunity for fast track status. Application for ODD by the FDA is planned for later in 2016.

Radioembolization with yttrium-90 microspheres offers an alternative treatment option for patients with unresectable or locally-advanced intrahepatic cholangiocarcinoma (ICC).

Radioembolization with yttrium-90 is safe and demonstrates antitumoral response and survival benefit in select patients with ICC. Results are most pronounced in patients with solitary tumors, for whom conversion to curative resection is possible.

Multimodal therapy including Yttrium-90 radioembolization could be relevant as neoadjuvant treatment before liver surgery or transplantation for intrahepatic cholangiocarcinoma.

However, the rarity and heterogeneity of ICC makes it difficult to draw firm conclusions about treatment efficacy.

New drugs are being tested in clinical trials phase I

In Portugal there is preclinical clinical and clinical research, there is experience and advanced surgical resources in this field.

Efforts must be made to create a task force to kick-start a research program / project on cholangiocarcinoma.

Objectives of the workshop 2:

- . To engage translational synergies among research teams to speed up knowledge, technological and treatment approaches
- . To set-up a research consortium focusing biliary tract cancer model

Research teams / partners:

1 – Maria João Gouveia – ICETA/UCBIO-REQUIMTE University of Porto
Cholangiocarcinoma: liver flukes and biliary carcinogenesis

2 – Liliana Violante - IPO Porto

Yttrium 90 as potential Cholangiocarcinoma neoadjuvant treatment

3 – José Tralhão - CHUC

Cholangiocarcinoma and liver transplantation

4 – Luís Rocha - Luzitin

Redoporphin clinical development in Cholangiocarcinoma

Comments and advice:

André Albergaria - Expert insights in building and promoting translational research consortium.

Discussion

Moderação: Teresina Amaro e Lúcio Santos

Organization:

Júlio Oliveira, Lúcio Lara Santos, André Albergaria