CORRESPONDENCE

Ductal Pancreatic Adenocarcinoma: Surgery, Pathology Work-up, and Neoadjuvant, Adjuvant, and Palliative Treatments

by Prof. Dr. med. Thomas Seufferlein, Dr. med. Marc Porzner, Prof. Dr. med. Volker Heinemann, Prof. Dr. med. Andrea Tannapfel, Prof. Dr. med. Martin Stuschke, Prof. Dr. med. Waldemar Uhl in issue 22/2014

Ultrasound-Based Therapies not Mentioned

The article discusses various chemotherapy regimens in the section on palliative treatment of pancreatic carcinoma (1), but regrettably fails to mention the treatment with ultrasound-guided high-intensity focused ultrasound (HIFU). HIFU is an innovative method, enabling targeted, non-invasive thermal ablation. In recent years, many reports about the use of high-intensity focused ultrasound with various diseases have been published, with a focus on the treatment of benign and malignant solid tumors. Current experience indicates that the proximity of a tumor to blood vessels does not play an important role, probably because the heat is rapidly removed by the blood stream. Thus, in principle, HIFU can be used to treat any solid space-occupying lesion accessible to ultrasound guidance, including, for example, uterine fibroids, skeletal and liver tumors, as well as pancreatic tumors encasing blood vessels. This is confirmed by the experiences we have gained in our hospital (the only ultrasound-guided HIFU system available in the German-speaking countries is located in Bonn, Germany) and by studies most of which have been performed in the East Asian region. These studies provide insight in the use of HIFU for pain relief and local tumor control: Gao et al. report (2) about the HIFU treatment of 39 patients with locally advanced pancreatic cancer. Pain relief was achieved in 79.5% of these patients. Another study of 251 patients (3) with advanced pancreatic cancer showed that HIFU treatment did not only reduce tumor size without serious complications, but also improved overall survival. A phase II study (4) evaluated HIFU treatment in combination with gemcitabine in patients with locally advanced pancreatic cancer. Two patients had a complete response and 15 patients a partial response.

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Conflict of interest statement

The authors declare that no conflict of interest exists.

In Reply:

Marinova et al. regret that in our article (1) HIFU treatment was not mentioned. We wish to point out that our article does not represent a general overview on the treatment of pancreatic adenocarcinoma, but a brief summary of the German S3 guideline update (2). HIFU is not included in this update. Only very limited data are available related to the question whether HIFU offers survival benefits in patients with pancreatic cancer. The cited Chinese study by He et al. (2002) on the prolongation of survival by HIFU treatment in 251 patients with advanced pancreatic adenocarcinoma was sourced from a volume of congress papers and has since then not been published in a peer-reviewed journal, according to a literature search conducted by us. The studies that have been published regarding HIFU are either case series or single-arm phase II studies on locally advanced pancreatic carcinoma conducted in Asia, such as the study mentioned by Marinova et al. about the combination of gemcitabine and HIFU. There is a lack of randomized controlled trials comparing HIFU with established local treatment modalities, such as radiotherapy. A very recently published Japanese study evaluating the safety of HIFU in pancreatic carcinoma showed a moderate effect of this treatment. This single-arm study reported disease control with HIFU treatment. Hence the authors postulate an additive effect of HIFU complementing chemotherapy (3). Consistently, some degree of efficacy is attributed to HIFU with regard to local pain control in patients with pancreatic carcinoma. However, supportive treatment was not part of the updated guideline, but will be dealt with in the next guideline update, which will also include methods for local pain control. Of note, HIFU is currently only available in few centers in Europe, in Germany apparently only in Bonn.

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