Professor Chunyi Hao: advances in the treatment of locally advanced pancreatic cancer

Meijuan Jin, Yanjiao Zhang

Editorial Department, DXY Biomedical Media, Hangzhou 310051, China

Corresponding to: Meijuan Jin, Editor. Editorial Department, DXY Biomedical Media, 3rd floor, Building 1, Lesu Sci-Tech Park, 428 Qiuyi Rd, Binjiang District, Hangzhou 310051, China. Email: jinmj@dxyer.com.

Submitted May 24, 2013. Accepted for publication Jun 14, 2013.
doi: 10.3978/j.issn.2224-4778.2013.06.03
Scan to your mobile device or view this article at: http://www.amepc.org/tgc/article/view/2242/3871

Pancreatic cancer is one of malignancies with a very high mortality due to limited treatments available. Most patients are diagnosed in their advanced stages, and the incidence and mortality remained almost the same for this so-called "the king of cancers". In the Early of this year, albumin-bound paclitaxel became a prospective regimen for patients with advanced pancreatic cancer and was proposed by the MPACT study published over the annual American Society of Clinical Oncology, Gastrointestinal Cancer Forum (ASCO GI) meeting in San Francisco. DXY interviewed with Professor Hao CY from Beijing Cancer Hospital on the treatments of locally advanced pancreatic cancer over the Expert Seminar on pancreatic cancer treatment progress sponsored by the Chinese Anti-Cancer Association.

DXY: Prof. Hao, thank you so much for being with us. The second half of today's seminar was focused on the topic of locally advanced pancreatic cancer treatments. Could you please introduce the current situation of locally advanced pancreatic treatments?

Prof. Hao: The term of locally advanced pancreatic cancer has not emerged until recent years. In the past, pancreatic cancer could be divided into two categories: early resectable pancreatic cancer and advanced unresectable pancreatic cancer or being with remote metastases. With advances of biological characterization and pancreatic cancer treatments in recent years, the definition of locally advanced pancreatic cancer has been proposed as a new category. In this category, borderline resectable pancreatic cancer is clinically significant for our surgeons. The patients with characteristics of this category should be especially concerned since there are currently no well recognized definitions for locally advanced pancreatic cancer and borderline resectable pancreatic cancer. The definition of borderline resectable pancreatic cancer has ever been translated as possibly resected pancreatic cancer, just because borderline resectable pancreatic cancer means the pancreatic cancer could possibly be resected or not resected depending on the decision of surgeons. For patients with borderline resectable pancreatic cancer, the lesion could be removed by surgical technology, but the goal of R0 surgery resection might not be achieved according to its onclogy. These patients could be possibly converted from the non-curative unresectable state to the curative resectable state by using chemotherapies, new remedies and tumor regression approaches. Therefore, the clinical significance of this definition is to offer potentially curative opportunities for these patients.

DXY: Could you please generalize the highlights of pancreatic cancer treatment progress proposed over the meeting?

Prof. Hao: The introduction of nab-paclitaxel was a big topic of locally advanced pancreatic cancer over the meeting. In the early of this year, ASCO GI published two clinical studies in patients with advanced pancreatic cancer, and albumin-bound paclitaxel was listed in the investigational products with positive benefit/risk profile. In a phase-II clinical study, the overall response rate was reported to be 48%. In another phase-III (phase-II as an error in speaking) clinical study, albumin-bound paclitaxel attained a response rate of 23%, which suggested about 20-30% percent of patients could be converted from non-curative unresectable state to the curative resectable state.

In clinical practice, partial response and complete response are both considered as effective indicators in the Oncology Evaluation Criteria. Actually, the partial response may not be necessarily be attained through tumor regression of 2 or 3 mm for patients with borderline resectable pancreatic cancer, but some patients with unresectable disease could be converted to a resectable state, and further improvements in efficacy are expected to be achieved significantly after appropriate chemotherapies. If we could reproduce the findings of MPACT study of European and American population in our Chinese population, more patients could benefit from this regimen.

DXY: As shown by the MPACT study, albumin-bound paclitaxel could prolong the overall survival of patients with advanced pancreatic cancer significantly in this phase-III study. From the perspective of a surgeon, could you please talk about the clinical significance of this finding for the surgical intervention of pancreatic cancer?

Prof. Hao: Efficacy and safety are the primary variables in the evaluation of Antineoplastic agents. MPACT study has already provided encouraging results. The safety of albumin-bound paclitaxel was favorable with lower frequency of adverse events, especially for serious adverse events. The control of disease was good under the management of this regimen, thus a higher response rate has been attained. For physicians, most patients suffer from unresectable advanced diseases or disease with remote metastases. The Overall Survival (OS) might be in great awareness for these patients. But for surgeons, the overall response rate should be more concerned. With more overall response rate is attained for a given antineoplastic agent, more patients are likely to be converted from the unresectable disease to a resectable state as a neo-adjuvant therapy. This is the greatest significance of MPACT study for our surgeons. This study introduced a highly effective chemotherapy regimen comprising mono-antineoplastic agent or its combination and this regimen could provide more potentially curative opportunities for patients. The clinical finding of this antineoplastic is a trend for our future clinical studies in China.

DXY: More specifically, do you think the finding of MPACT study could be transformed to the perioperative treatment of pancreatic cancer?

Prof. Hao: Perioperative treatment could be divided into pre-operative and post-operative treatments. Most post-operative treatments included adjuvant therapies, while neoadjuvant therapy was used in the MPACT study, reporting the overall response rate, which provides especially convincing evidences for conversion therapy. Neoadjuvant therapy could be divided into two categories according to the condition: conversion therapy which could convert the unresectable disease to a resectable state, and pre-operative chemotherapies to improve operation outcomes of resectable patients. MPACT study has provided convincing evidences for the conversion therapy. However, it was a trend for future studies rather than neoadjuvant therapies available directly in clinical practice.

DXY: Could you please talk about how to convert from an unresectable disease to a resectable state?

Prof. Hao: The so-called conversion therapy is defined as regression of prior unresctable lesion by adjuvant therapies and conversion to resectable lesion by surgical techniques in combination with or without other therapies. This therapy could provide potential curative opportunities for patients with pancreatic cancer. For a neoadjuvant therapy, higher response rate corresponds to improved conversion rates. With this regimen, tumors regression could be achieved and converted to resectable lesions.

DXY: What shall we do as our emphasis in this conversion process?

Prof. Hao: During this conversion process, the safety, efficacy and treatment opportunity should be in awareness. Compared with neoadjuvant and conversion therapies, the benefit/risk profiles of safety and efficacy should be evaluated both in adjuvant therapies and palliative care. In case of adjuvant therapies and palliative care, safety should take the first place in order to ensure the quality of life, which means to make patients live longer and better. However, for neoadjuvant therapies, efficacy might be considered in priority for patients in good general conditions in order to maximize the conversion opportunities after short-term or limited regimens. It also should be noted that the condition of patient should be followed up closely during the course of conversion therapies. For patients with successful conversion, chemotherapies should be discontinued appropriately, and selective surgical intervention should start next. Long-term chemotherapy should be avoided in pursuit of efficacy maximization, because any chemotherapy is a double-edged

sword which kills tumors cells, as well as destroys well-being body and produces other systematic toxicities. The safety should never be ignored during the treatment for a nonconscious goal of lesion regression.

DXY: Multidisciplinary assessment has been included in 2011 "NCCN Clinical Practice Guidelines in pancreatic cancer" (Chinese version). Can you tell how to utilize multidisciplinary integration treatments to improve the survival and quality of life for patients with pancreatic cancer?

Prof. Hao: The function of multidisciplinary treatments has well established in oncology. In European countries (e.g., the United Kingdoms), the treatment regimen for cancer patients should be decided on a multidisciplinary treatment (MDT) discussion basis which are legal provisions. In China, multi-disciplinary coordination works well, especially in senior cancer hospitals or comprehensive hospitals. Colorectal liver metastasis is one of such typical cancers requiring multi-disciplinary coordination. Multi-disciplinary coordination is also required during the courses of biological studies, treatment and evaluation of pancreatic cancer. The departments of oncology, pancreatic surgery, radiology, radiotherapy, pathology, basic research, traditional Chinese medicine, and palliative care should all be involved to make decisions on multi-disciplinary coordination basis in order to provide an optimal regimen with maximal benefits and minimal adverse effects.

DXY: Last week, the NCCN guideline [2013] was updated to include the MPACT study findings in the Class-I recommendations for the first-line therapies of metastatic pancreatic cancer. Do you think what kind of impact of this event will produce on the treatment of Chinese patients with pancreatic cancer?

Prof. Hao: The change is inevitable. Various guidelines are prepared primarily based on strong medical evidences. In the era of evidence-based medicine, all of our clinical practice should be guided by evidence-based medicine. Stronger evidences lead to higher guiding significances. MPACT was a multi-center, open-label and well-designed clinical study and could provide most convincing evidences of the highest level. Since the evidences from this study were of highest level, the clinical data derived from these evidences are the most powerful and convincing guidelines for clinical practice. The MPACT study concluded nab-paclitaxel should be recommended as the first-line therapy of advanced metastatic pancreatic cancer. NCCN accepted the recommendation and elevated the recommendation level significantly. This recommendation elevation will have an impact on China: U.S. and European countries consider evidence-based medicine in high priority, and the significance of evidence-based medicine had not been in awareness in China until recent years. Relevant clinical studies will be involved in a short time and we could achieve our own data, taking advantage of our large patient population, as the guideline for our clinical practice. We expected nab-paclitaxel will be approved by State Food and Drug Administration (SFDA) for this indication and this neoadjuvant therapy will benefit Chinese patients significantly.

Cite this article as: Jin MJ, Zhang YJ. Professor Chunyi Hao: advances in the treatment of locally advanced pancreatic cancer. Transl Gastrointest Cancer 2014;3(1):57-59. doi: 10.3978/j.issn.2224-4778.2013.06.03

Acknowledgements

Disclosure: The authors declare no conflict of interest.

