

Role of Minimally Invasive Surgery in Cholangiocarcinoma

Beuy Joob,^{1*} and Viroj Wiwanitkit²

¹Sanittion1 Medical Academic Center, Bangkok Thailand

²Visiting Professor, Hainan Medical University, China

*Corresponding author: Beuy Joob, Sanittion1 Medical Academic Center, Bangkok Thailand. E-mail: beuyjoob@hotmail.com

Received 2017 June 01; Revised 2017 July 10; Accepted 2017 August 05.

Keywords: Minsurgery

Dear Editor,

The role of minimally invasive surgery is confirmed by previous studies. Nowadays the mini-surgery technique is applied for several medical disorders. Also it could be applied cancer treatment; the technique can also be applied. Minimally invasive surgery is usually applied for the early stage of cancer and there is high incidence of success rate of the surgery. The technique also reduced the need for long term post-operative hospitalization (1). Here, the authors discussed about the use of minimally invasive surgery in cholangiocarcinoma in our setting, Indochina where the extremely high incidence of this deadly biliary tract cancer can be seen.

The main problem for management of cholangiocarcinoma in Indochina is the late presentation of the case to the physicians. Patients usually have advanced disease and the surgical management is extremely hard (2). In fact, the use of minimally invasive surgery in cholangiocarcinoma is used in some other medical centers in other regions. The recent publication from Italy noted that “Minimally invasive surgery seems feasible and safe especially for intrahepatic cholangiocarcinoma (3)”. However cases in Levi Sandri et al. study, that report covers the patients with early stage with intrahepatic cholangiocarcinoma. Which is different from cases in Indochina which are usually advanced in stage.

In Thailand, a country in Indochina, there are some reports on using minimally invasive surgery technique for management of cholangiocarcinoma. The aim is usually palliative treatment and the hilar cholangiocarcinoma is the main type of cancer for mini-surgical management (4). The endoscopic surgery is proved effective for this purpose (4). The success drainage for relieving of the hyperbilirubinemia in patients with advanced disease is the main advantage of the technique (5). Recently, Panpimanmas and Ratanachu-eket al. reported the first trial on “endoscopic ultrasound-guided hepaticogastrostomy for hilar cholangiocarcinoma” and showed that “It can improve the palliative treatment in hilar lesions because it’s inter-

nal drainage and far from tumor site that promote fast recovery (6).” According to this study, this technique is feasible and safe comparing to standard surgery. It was finally concluded that “Endoscopic-ultrasound-guided hepaticogastrostomy is safe and can be a good palliative option for advanced malignant biliary obstruction because it drains internally and is remote from the tumor site, promoting a long patency period of prosthesis and better quality of life (7).” This observation is concordant with the report from other centers (8, 9).

Based on the case of minimally invasive surgery for management of cholangiocarcinoma in Thailand, it could be concluded that the minimally invasive surgery still plays important role in management of cancerous patients with extremely advanced disease. The main role of the minimally invasive surgery is the management of the biliary obstruction due to non-removal tumor from basic traditional approach. Comparing to traditional approach, minimally invasive surgery can provide a less harmful surgery with a comparable result in palliation of the obstructive jaundice.

Footnote

Conflict of Interests: None.

References

1. Nahas S, Feigenberg T, Park S. Feasibility and safety of same-day discharge after minimally invasive hysterectomy in gynecologic oncology: A systematic review of the literature. *Gynecol Oncol.* 2016;**143**(2):439–42. doi: [10.1016/j.ygyno.2016.07.113](https://doi.org/10.1016/j.ygyno.2016.07.113). [PubMed: [27475523](https://pubmed.ncbi.nlm.nih.gov/27475523/)].
2. Wiwanitkit V. Clinical findings among 62 Thais with cholangiocarcinoma. *Trop Med Int Health.* 2003;**8**(3):228–30. [PubMed: [12631312](https://pubmed.ncbi.nlm.nih.gov/12631312/)].
3. Levi Sandri GB, Spoletini G, Masciana G, Colasanti M, Lepiane P, Vennarecci G, et al. The role of minimally invasive surgery in the treatment of cholangiocarcinoma. *Eur J Surg Oncol.* 2017;**43**(9):1617–21. doi: [10.1016/j.ejso.2017.02.012](https://doi.org/10.1016/j.ejso.2017.02.012). [PubMed: [28292628](https://pubmed.ncbi.nlm.nih.gov/28292628/)].
4. Rerknimitr R, Kullavanijaya P. Endoscopic management of cholangiocarcinoma. *J Med Assoc Thai.* 2001;**84 Suppl 1**:S452–5. [PubMed: [11529373](https://pubmed.ncbi.nlm.nih.gov/11529373/)].

5. Rerknimitr R, Attasaranya S, Kladchareon N, Mahachai V, Kullavanijaya P. Feasibility and complications of endoscopic biliary drainage in patients with malignant biliary obstruction at King Chulalongkorn Memorial Hospital. *J Med Assoc Thai*. 2002;**85 Suppl 1**:S48-53. [PubMed: [12188451](#)].
6. Panpimanmas S, Ratanachu-ek T. Endoscopic ultrasound-guided hepaticogastrostomy for hilar cholangiocarcinoma: the first trial in Thailand. *J Med Assoc Thai*. 2011;**94 Suppl 2**:S129-34. [PubMed: [21717892](#)].
7. Panpimanmas S, Ratanachu-ek T. Endoscopic ultrasound-guided hepaticogastrostomy for advanced cholangiocarcinoma after failed stenting by endoscopic retrograde cholangiopancreatography. *Asian J Surg*. 2013;**36**(4):154-8. doi: [10.1016/j.asjsur.2013.04.007](#). [PubMed: [23768731](#)].
8. Park YJ, Kang DH. Endoscopic drainage in patients with inoperable hilar cholangiocarcinoma. *Korean J Intern Med*. 2013;**28**(1):8-18. doi: [10.3904/kjim.2013.28.1.8](#). [PubMed: [23345990](#)].
9. Lee TH, Lee SJ, Moon JH, Park SH. Technical tips and issues of biliary stenting, focusing on malignant hilar obstruction. *Minerva Gastroenterol Dietol*. 2014;**60**(2):135-49. [PubMed: [24780948](#)].