SURVEY ON LAPAROSCOPIC SURGERY FOR GALLBLADDER CANCER: EXPERT CONSENSUS MEETING IN THE 26TH WORD CONGRESS OF IASGO

**General questions**

1. What is your age?
2. In which country do you work?
3. In what type of medical center are you working?
   1. Academic center
   2. Non-academic center
4. How many years have you been working as a surgeon after completion of residency program (post-surgical training / fellowships included)?
5. How many cases of cholecystectomy are performed in your center annually?
   1. <100
   2. 100- 499
   3. 500- 999
   4. 1000
6. How many resections for gallbladder cancer (GBC) are performed in your center annually?
   1. <10
   2. 10- 49
   3. 50- 99
   4. 100

**Opinion on laparoscopic surgery for GBC**

1. In your opinion, what is the acceptable role of laparoscopic surgery for GBC? \* multiple answers possible
   1. Absolute contraindication
   2. Staging laparoscopy
   3. Initial cholecystectomy for suspicious GBC
   4. Extended cholecystectomy for early GBC (T1 or T2)
   5. Extended cholecystectomy for T3 GBC
   6. Other:
2. In your opinion, what is the overall value of laparoscopic extended cholecystectomy compared to an open approach in patients with GBC?
   1. Inferior value of laparoscopic surgery
   2. Equivalent value of laparoscopic surgery
   3. Superior value of laparoscopic surgery

**Diagnostic work-up**

1. What kind of preoperative radiologic investigations do you perform for preoperative evaluation in patients with suspicious GBC? \* multiple answers possible
   1. Transabdominal ultrasound
   2. Endoscopic ultrasound
   3. CT
   4. MRI/MRCP
   5. PET
   6. Other:
2. Do you perform the frozen biopsy during operation for suspicious GBC?
   1. No
   2. Yes
3. If you have selected "B", for what of the following do you perform the frozen biopsy? \* multiple answers possible
   1. Diagnosis of malignancy
   2. Depth of invasion
   3. Cystic duct margin
   4. LN metastasis
   5. Other:
4. How do you evaluate the depth of invasion of GBC intraoperatively?
   1. Gross morphology
   2. Frozen section biopsy
   3. Laparoscopic ultrasound
   4. Other:

**Suspicious GBC**

1. Do you try to perform a laparoscopic surgery when GBC is suspected?
   1. No
   2. Yes
2. Do you perform open conversion when the malignancy is confirmed intraoperatively?
   1. No
   2. Yes
3. If you have selected “A”, when do you perform open conversion? \* multiple answers possible
   1. Suspicious invasion beyond the mucosa
   2. Suspicious liver invasion
   3. Suspicious LN metastasis
   4. Suspicious cystic duct/CBD involvement
   5. Other:

**Overt GBC**

1. Do you try to perform a laparoscopic surgery when GBC is overt?
   1. No
   2. Yes
2. If you have selected “B”, when do you perform an open surgery for overt GBC? \* multiple answers possible
   1. Large sized tumor
   2. Suspicious liver invasion
   3. Suspicious LN metastasis
   4. Suspicious cystic duct/CBD involvement
   5. Association with acute cholecystitis
   6. Other:
3. If you have selected “B”, when do you perform open conversion? \* multiple answers possible
   1. suspicious invasion beyond the mucosa
   2. Suspicious liver invasion
   3. LN metastasis
   4. Cystic duct/CBD involvement
   5. Other:

**Laparoscopic extended cholecytectomy**

1. Do you have experiences on a laparoscopic extended cholecystectomy for GBC?
   1. No
   2. Yes
2. If you have selected "Yes", how many cases were performed in your center?
3. For which of the following items do you have technical concerns regarding laparoscopic surgery for GBC? \* multiple answers possible
   1. Perforation during dissection of GB
   2. LN dissection
   3. Liver resection
   4. Risk of intraoperative bleeding
   5. Operative time
   6. Ability to achieve a complete, margin-free resection (R0)
   7. Costs/resource utilization
   8. Postoperative complication
   9. Other:
4. In your opinion which of the following is a contra-indication for proceeding with a laparoscopic extended for GBC? \*multiple answers possible
   1. None
   2. Lymph node metastasis
   3. Large sized tumor
   4. Cystic duct/CBD involvement
   5. Invasion of the liver
   6. Invasion of other adjacent organs
   7. Association of acute cholecystitis
   8. Prior upper abdominal surgery
   9. Other:
5. What is your indication for performing liver resection in terms of depth of invasion?
   1. T1a or more
   2. T1b or more
   3. T2 or more
   4. T3 or more
6. Does location of tumor (liver side/peritoneal side) affect your decision on liver resection?
   1. No
   2. Yes
   3. Other:
7. What type of liver resection do you perform?
   1. Wedge resection
   2. Segment IVb + V
   3. Other:
8. What is your indication for performing LN dissection in terms of depth of invasion?
   1. T1a or more
   2. T1b or more
   3. T2 or more
   4. T3 or more
9. What’s your extent of LN dissection?
   1. cystic LN
   2. #12 LN
   3. #13 LN
   4. # 8 LN
   5. # 9 LN
   6. #14 LN
   7. #16 LN
   8. Other:
10. Do you routinely resect the CBD when cystic duct or CBD is not involved by GBC?
    1. No
    2. Yes
    3. Other:

**Laparoscopically discovered GBC**

1. What is your indication for performing a reoperation for curative intent in terms of depth of invasion?
   1. T1a
   2. T1b
   3. T2
   4. T3
2. When do you perform a reoperation for curative intent after initial operation?
   1. As soon as possible
   2. After ( ) months
3. Do you have experiences on laparoscopic redo surgery for postoperatively diagnosed GBC?
   1. No
   2. Yes
4. If you have selected "Yes", how many case were performed in your center?
5. Do you excise the port sites at the reoperation?
   1. No
   2. Yes
   3. Other:
6. Do you resect the CBD for complete removal of LNs at the reoperation?
   1. No
   2. Yes