Point-by-point responses

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Corresponding author: Tomohide Hori
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Thank you for your valuable suggestions.
According to your reviewers' comments, we revised our initial draft.
Also, we made a point-by-point responses, as described in the second page.

Manuscript (Main body and Table/Figure) was checked by English consultant (Edanz editing, Manuscript ID: J1307-56446-Hori).
I sent a Certificate by online system.

If you have any questions, please do not hesitate to contact me.
We wait for your decision.

Sincerely yours,

Tomohide Hori, Ph.D., M.D.
Department of Hepato-Biliary-Pancreatic and Transplant Surgery
Kyoto University Graduate School of Medicine
54 Shogoinkawara-cho, Sakyo-ku, Kyoto 606-8507, Japan
E-mail:horit@kuhp.kyoto-u.ac.jp

Responses to Reviewers

To Reviewer 1

1. Abdominal wall closure after umbilical resection

Thank you for your valuable suggestion.

To avoid the umbilical hernia after mass resection and local infection after colon surgery, the abdominal wall was simply closed. After making skin flap, peritoneum was sutured with a tight running pattern by using absorbable, atraumatic suture material. The fascia was tightly closed with interrupted sutures by using absorbable, atraumatic suture material. Buried absorbable sutures were used for skin closure. Actually, in this case, no hernia and infections were confirmed after surgery.

According to your suggestion, we simply added mention, as '<u>After making skin flap, peritoneum was sutured with a running pattern. The fascia was tightly closed with interrupted sutures by using absorbable material. Buried absorbable sutures were used for skin closure.</u>' in the revised manuscript.

2. Metastatic route to SMJN

Thank you for your valuable suggestion.

In our case, histopathological findings revealed no direct disseminations and no developed lymphoid ducts around umbilical tumor. The ICG injection detected drainage lymph nodes from umbilical tumor to intra-abdominal lymph nodes, and these 'secondary' lymph nodes were not metastatic. Histopathological assessments revealed that both of primary colon tumor and metastatic umbilical mass showed advanced invasions into vessels and A-V shunts, and image findings showed developed vessels to umbilical mass from the inferior epigastric vessels. The imaging findings of the inferior epigastric vessels with inguinal lymphoid metastasis as well as the results of VEGF and TM may support the development of the hematogenous pathway in our case. Histopathoplogical and ICG injection showed metastatic lymphatic networks did not develop around umbilical tumor. As previous papers (Ref. 26-20), metastatic route to umbilicus is not a single and so complicate. We understood that it seems difficult to establish the haematogenic route, and we also understood that we just speculated that our case maybe mainly occur

umbilical metastasis via haematogenic route.

According to your suggestion, we revised/added sentences in the Discussion section as 'Histopathological findings revealed umbilical tumor without direct disseminations and developed lymphoid ducts. The ICG injection detected drainage lymph nodes from umbilical tumor to intra-abdominal lymph nodes, and these 'secondary' lymph nodes were not metastatic. Histopathoplogical and ICG injection showed metastatic lymphatic networks did not develop around umbilical tumor. Histopathological assessments revealed that primary and umbilical tumors showed advanced invasions into vessels with arteriovenous shunts. The imaging findings of the inferior epigastric vessels with inguinal lymphoid metastasis as well as the results of VEGF and TM may support the development of the hematogenous pathway in our case. Metastatic route to umbilicus is so complicate[26-30], and it seems difficult to establish the haematogenic route. We just speculated that our SMJN maybe mainly occur via haematogenic pathway..

3. Numbers of figures and references

Thank you for your suggestion.

According to your suggestion, we deleted 3 figures, and the figure number was decreased from 8 to 6, in the revised manuscript.

Also, according to your suggestion, we deleted 8 references, and the references number was decreased from 38 to 30, in the revised manuscript.

To Reviewer 2

1. Surgical equipment including single access port

Thank you for your suggestion.

According to your suggestion, we added the mention in the text, as ' by using a single access port (EZ Access: Hakko Medical Co. Ltd., Chikuma, Nagano, Japan) and trocar (EZ trocar, Hakko Medical Co. Ltd.)'.

2. Treatment for urachal tract

Thank you for your suggestion.

Urachal tract was simply ligated during the umbilical excision in this case.

According to your suggestion, we added the mention in the text, as 'The

umbilicus and caulescent tumor were resected en bloc with establishment of surgical margins and ligation of vessels and urachal tract.'.

3. Advantages and disadvantages of single incision laparoscopy in cases of malignancy

Thank you for your valuable suggestion.

As described in the Discussion section with references, 'Although we agreed that SILS is associated with some problems in terms of its safety and certainty, we consider that SILS still has an advantage in terms of being a palliative surgery that minimizes wound complications and postoperative pain.'.

According to your suggestion, we simply added a sentence in the discussion section, as 'In cases of malignancy, we suggested that SILS is still available for palliative surgery, even though SILS accompanies some problems.'.