Survey to HPB Surgeons

Synchronous colorectal liver metastases: an international survey on surgeons and oncologist opinion on treatment strategy and multidisciplinary management

Dear Colleague,

We are conducting an international survey to gain a comprehensive understanding of surgeons' and oncologists' opinion s and practices regarding the management of synchronous colorectal liver metastases (CRLM). Your participation in this survey is invaluable and will contribute significantly to advancing our knowledge in this area of surgical oncology.

Definitions

Synchronous liver metastases refer to metastases in the liver from a colon or rectal cancer, diagnosed prior to resection.
Simultaneous resection is defined as resection of liver metastases and the primary bowel tumor under a single general anesthetic (single surgery).

Purpose

The aim of this survey is to gather insights and perspectives from colorectal surgeons, hepatobiliary surgeons, and medical oncologists on the optimal treatment strategies for patients with synchronous CRLM. Your response will help identify current practices, challenges, and opinions on the management of these patients.

Instructions

Please answer all questions to the best of your ability. Your responses are confidential and will be used solely for research purposes.
The survey includes both specific questions related to your practice and general demographic questions to help contextualize the data.

We highly appreciate your willingness to participate and share your expertise in this important field.
Thank you for your time and valuable insights.

Sincerely

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General questions

1. Institution information
    a. What type of institution do you work at?
        i. Academic Hospital
        ii. Community Hospital
        iii. Private Practice
        iv. Other

2. Country of Origin
    a. Country of Origin; In which country is your institution located?

3. Respondent's Role
    a. What is your primary role?
        i. General Surgeon
        ii. Colorectal surgeon
        iii. Hepatobiliary Surgeon
        iv. Medical Oncologist
        v. Other

4. Years in practice
    a. How many years have you been in practice as a specialist?
        i. 0-5 years
        ii. 6-10 years
        iii. 11-15 years
        iv. 16-20 years
        v. More than 20 years

5. MDT Participation
    a. How frequently are multidisciplinary team (MDT) meetings for colorectal cancer liver metastases held at your institution?

i. Weekly
ii. Bi-weekly
iii. Monthly
iv. Less frequently
v. Never
vi. Other

b. How frequently do you attend MDT meetings for colorectal cancer liver metastases?
i. Weekly
ii. Bi-weekly
iii. Monthly
iv. Less frequently
v. Never
vi. Other

6. Volume of Cases
    a. Approximately how many patients with synchronous colorectal liver metastases do you manage per year?
        i. 0-10 patients
        ii. 11-20 patients
        iii. 21-30 patients
        iv. More than 30 patients

Questions for Hepatobiliary Surgeons

MDT composition and referral practice

1. Do you have access to a colorectal surgeon
    a. At your own institution?
    b. At a collaborating hospital in the geographical area
    c. No
    d. Other
2. Do you have access to a medical oncologist
    a. At your own institution?
    b. At a collaborating hospital in the geographical area
    c. No
    d. Other
3. Who attends the MDT meeting for patients with synchronous CRLM at your institution? (Select all that apply)
    a. Medical oncologists
    b. Radiologist
    c. Interventional radiologist
    d. Hepatobiliary surgeons

    e. Transplant surgeons
    f. Colorectal surgeons
    g. Hepatologists
    h. Specialized nurses
    i. Other, please specify
4. In your opinion, should a patient with liver metastases generally be referred to an HPB surgeon **before** resection of the primary tumor?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
5. In general, do you consult a medical oncologist before resecting colorectal liver metastases?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
6. Do you perceive synchronous diagnosis of liver metastases as an indication of neoadjuvant chemotherapy?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
7. In your opinion, which scenarios restrict a *colorectal surgeon* from referring a patient with synchronous CRLM to an HPB surgeon? (Select all that apply)
    a. Bilobar metastases (liver metastases in both the right and left lobe)
    b. >5 liver metastases
    c. Portal lymphadenopathy
    d. Extrahepatic metastases
    e. Extensive patient comorbidity (by their definition)
    f. Age >80 years
    g. Limited access to HPB surgeons
    h. Symptomatic primary tumor
    i. Rectal cancer
    j. Other patient/tumor factors (please specify)
    k. None of the above
8. Are there local guidelines at your institution guiding referral to an HPB surgeon?
    a. Yes
    b. No
    c. Don’t know
9. Are there national guidelines at your institution guiding referral to an HPB surgeon?
    a. Yes
    b. No
    c. Don’t know

10. Do you have the option/logistic prerequisites to perform simultaneous resections at your hospital?
    a. Yes
    b. No
    c. Other (please specify)
11. If yes, can minimally invasive (laparoscopic or robotic) simultaneous resections (liver + primary tumor) be performed
    a. Yes
    b. No
12. Are you invited by colorectal surgeons to perform simultaneous resections?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never

Preferred resection strategy

13. How willing are you to perform a simultaneous resection depending on the magnitude of the procedure?
    Rate 0-5 (0-not willing at all, 1-slightly willing, 2-moderately willing, 3-willing, 4-very willing, 5-extremely willing)
    a. Local liver resection/segmentectomy with
        i. Right hemicolectomy in T1-3, N0-1 *without* neoadjuvant chemotherapy
        ii. Right hemicolectomy in T1-3, N0-1 *with* neoadjuvant chemotherapy
        iii. Right hemicolectomy in T3-4, N1-2 *without* neoadjuvant chemotherapy
        iv. Right hemicolectomy in T3-4, N1-2 *with* neoadjuvant chemotherapy
        Left hemicolectomy
        v. Left hemicolectomy in T1-3, N0-1 without neoadjuvant chemotherapy
        vi. Left hemicolectomy in T1-3, N0-1 with neoadjuvant chemotherapy
        vii. Left hemicolectomy in T3-4, N1-2 without neoadjuvant chemotherapy
        viii. Left hemicolectomy in T3-4, N1-2 with neoadjuvant chemotherapy
        ix. Anterior resection of preoperatively irradiated rectal cancer
        x. Anterior resection of preoperatively non-irradiated rectal cancer
        xi. Abdominoperineal resection of preoperatively irradiated rectal cancer
        xii. Abdominoperineal resection of preoperatively non-irradiated rectal cancer
    b. Right hemihepatectomy with
        i. Right hemicolectomy in T1-3, N0-1 *without* neoadjuvant chemotherapy
        ii. Right hemicolectomy in T1-3, N0-1 *with* neoadjuvant chemotherapy
        iii. Right hemicolectomy in T3-4, N1-2 *without* neoadjuvant chemotherapy

iv. Right hemicolectomy in T3-4, N1-2 *with* neoadjuvant chemotherapy
Left hemicolectomy
v. Left hemicolectomy in T1-3, N0-1 without neoadjuvant chemotherapy
vi. Left hemicolectomy in T1-3, N0-1 with neoadjuvant chemotherapy
vii. Left hemicolectomy in T3-4, N1-2 without neoadjuvant chemotherapy
viii. Left hemicolectomy in T3-4, N1-2 with neoadjuvant chemotherapy
ix. Anterior resection of preoperatively irradiated rectal cancer
x. Anterior resection of preoperatively non-irradiated rectal cancer
xi. Abdominoperineal resection of preoperatively irradiated rectal cancer
xii. Abdominoperineal resection of preoperatively non-irradiated rectal cancer

c. Left hemihepatectomy with
i. Right hemicolectomy in T1-3, N0-1 *without* neoadjuvant chemotherapy
ii. Right hemicolectomy in T1-3, N0-1 *with* neoadjuvant chemotherapy
iii. Right hemicolectomy in T3-4, N1-2 *without* neoadjuvant chemotherapy
iv. Right hemicolectomy in T3-4, N1-2 *with* neoadjuvant chemotherapy
Left hemicolectomy
v. Left hemicolectomy in T1-3, N0-1 without neoadjuvant chemotherapy
vi. Left hemicolectomy in T1-3, N0-1 with neoadjuvant chemotherapy
vii. Left hemicolectomy in T3-4, N1-2 without neoadjuvant chemotherapy
viii. Left hemicolectomy in T3-4, N1-2 with neoadjuvant chemotherapy
ix. Anterior resection of preoperatively irradiated rectal cancer
x. Anterior resection of preoperatively non-irradiated rectal cancer
xi. Abdominoperineal resection of preoperatively irradiated rectal cancer
xii. Abdominoperineal resection of preoperatively non-irradiated rectal cancer

d. Extended hemihepatectomy with
i. Right hemicolectomy in T1-3, N0-1 *without* neoadjuvant chemotherapy
ii. Right hemicolectomy in T1-3, N0-1 *with* neoadjuvant chemotherapy
iii. Right hemicolectomy in T3-4, N1-2 *without* neoadjuvant chemotherapy
iv. Right hemicolectomy in T3-4, N1-2 *with* neoadjuvant chemotherapy
Left hemicolectomy
v. Left hemicolectomy in T1-3, N0-1 without neoadjuvant chemotherapy
vi. Left hemicolectomy in T1-3, N0-1 with neoadjuvant chemotherapy
vii. Left hemicolectomy in T3-4, N1-2 without neoadjuvant chemotherapy
viii. Left hemicolectomy in T3-4, N1-2 with neoadjuvant chemotherapy
ix. Anterior resection of preoperatively irradiated rectal cancer
x. Anterior resection of preoperatively non-irradiated rectal cancer
xi. Abdominoperineal resection of preoperatively irradiated rectal cancer

xii. Abdominoperineal resection of preoperatively non-irradiated rectal cancer

14. During a simultaneous resection, do you prefer if the colorectal surgeon protects the anastomosis with a defunctioning stoma?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
15. During a simultaneous resection, which tumor/metastases do you address first?
    a. Liver first
    b. Primary tumor first
    c. No preference
    d. Depending on the situation

Assessment of resectability

16. In your opinion, can a colorectal surgeon assess resectability of liver metastases?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
17. In an otherwise healthy and fit patient, can you as a HPB surgeon determine the resectability of colon cancer?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
18. In an otherwise healthy and fit patient, can you as a HPB surgeon determine the resectability of a rectal cancer?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
19. In an otherwise healthy and fit patient, can you as an HPB surgeon determine the resectabillity/treatability of lung metastases?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never

Preferred sequence

20. What is your preferred sequence of resection in asymptomatic/minimally symptomatic colon cancer with synchronous liver metastases?
    a. Simultaneous resection
    b. Colon first

c. Liver first
d. No preference

21. What is your preferred sequence of resection in symptomatic colon cancer with synchronous liver metastases?
    a. Simultaneous resection
    b. Colon first
    c. Liver first
    d. No preference
22. What is your preferred sequence o resection in liver metastatic rectal cancer?
    a. Simultaneous resection
    b. Rectum first
    c. Liver first
    d. No preference
23. In your opinion, what are the drawbacks of a simultaneous resection? (Select all that apply)
    a. Increased risk of morbidity?
    b. Increased risk of mortality?
    c. Decreased chance of adjuvant chemotherapy
    d. Earlier recurrence
    e. Increased risk of anastomotic leakage
    f. Increased risk of biliary leakage
    g. Higher risk of diverting stoma
    h. Other
    i. None of the above
24. In your opinion, what are the advantages of a simultaneous resection? (Select all that apply)
    a. Improved overall survival rates
    b. Reduced need for multiple surgeries
    c. Earlier initiation of adjuvant chemotherapy
    d. Decreased time in the hospital
    e. Lower healthcare costs associated with treatement
    f. Better quality of life post-surgery
    g. Other
    h. None of the above

Current practice

25. Do you as a HPB surgeon resect the synchronous colon cancer?
    a. Routinely
    b. Frequently
    c. Rarely
    d. Never
26. Do you as a HPB surgeon resect the synchronous rectal cancer?
    a. Routinely
    b. Frequently

    c. Rarely
    d. Never
27. What factors influence your decision to perform simultaneous versus staged resections? (Select all that apply)
    a. Patient comorbidities
    b. Tumor stage of the primary tumor
    c. Location of primary tumor
    d. Liver metastatic burden
    e. Extent of the liver resection
    f. Patient preference
    g. Institutional and/or national guidelines
    h. Other (please specify)
28. What are the main challenges you face in managing patients with synchronous CRLM (Select all that apply)
    a. Coordination of care
    b. Access to specialized surgeons
    c. Access to oncologists
    d. Access to specialized MDT
    e. Patient comorbidities
    f. Lack of guidelines
    g. Other (please specify)
29. What do you think the patient prefer when all three strategies are possible?
    a. Simultaneous resection
    b. Primary tumor first
    c. Liver first