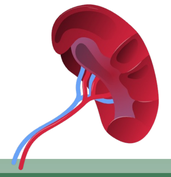
Splenic and Hepatic Metastasis of Colorectal Cancer : *a case report and literature review*

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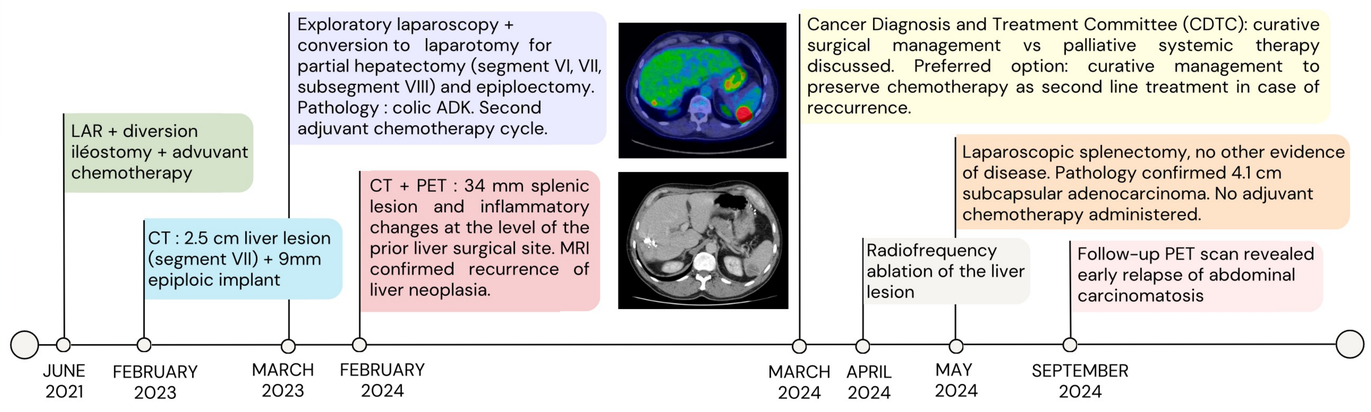
Introduction

- Splenic metastases from non-hematological cancers are rare (2–7%), with even lower rates in colorectal cancer (0.15–2%).
- Most cases occur in advanced disease with metastases to other organs; isolated splenic involvement is rare and usually metachronous.
- Despite its rich vascularity, splenic involvement remains uncommon, likely due to its unique anatomical and immunological features.
- This poster presents a case of isolated splenic and hepatic metastasis from colorectal cancer and explores the main hypotheses for splenic sparing through a literature review.

Methodology

Case reviewed with a literature search via PubMed, Ovid, and Cochrane.

Case Report



61 YO MALE, T3N2BM0 (STAGE IIIC), RECTAL ADENOCARCINOMA

Discussion

<u>Factors that contribute to the rarity of isolated splenic metastasis</u>

- **Anatomical features**
  - Sharp angle between splenic and celiac arteries limits dissemination
  - Lack of afferent lymphatics in parenchyma, with sparse capsular, subcapsular and trabecular lymphatics
  - Splenic capsule acts as a physical barrier to parenchymal invasion
  - Rhythmic contraction of sinusoids prevents tumor implantation
- **Immunologic features**
  - Spleen's reticuloendothelial function suppresses tumor growth (monocytes, Kupffer cells, immunoglobulins, opsonins)
  - Production of tumor-inhibitory factors by spleen (angiostatin, splenic factor)

<u>Metastatic routes hypotheses from CRC to the spleen</u>

- **Hematogenous route (favored hypothesis)**
  - Most cases originate from the left colon, particularly the sigmoid colon.
    - suggests tumor cells reach the splenic vein and parenchyma by retrograde diffusion through the inferior mesenteric vein
  - Metastases are typically limited to the splenic parenchyma
  - Lymph node involvement at the splenic hilum is rare
- **Lymphatic route (alternative hypothesis)**
  - Characterized by subcapsular localization of metastases
  - Presents hilar lymph node involvement

<u>Case management recommendations following literature review</u>

- **Diagnosis**:
  - Splenectomy remains the preferred diagnostic and therapeutic approach, although FNA is safe.
- **Surgical approach**:
  - Historically, laparotomy was preferred, but since the 2000s, laparoscopic splenectomy has become the standard of care due to its minimal invasiveness and comparable dissemination risk.
- **Chemotherapy** :
  - Post-splenectomy chemotherapy is a reasonable option, though studies show no significant impact on long-term survival. In addition, neoadjuvant chemotherapy treatments should be studied, as only two cases are reported in the literature.

Results of Literature Review

Demographics	
Age (yo)	Mean 62 [41-81] Median 62
Sex	59% M
Neoplasia	
Stage: III N+	65%
Localisation: • Sigmoid • Ascendant • Descendant • Rectum • Transverse	 34% 29% 20% 14% 3%
Metachronus	90%
Size of splenic mass (cm)	mean 5,6 [1,5-18]
Time from primary surgery to splenic metastasis (months)	mean 38 [3-132] median 27,5
Diagnosis	
CT imaging and/or CEA	95%
Symptoms	4%
TEP scan use	23%
FNA/biopsy	7%
Treatment	
Splenectomy • Laparotomy • Laparoscopy • Chemotherapy *(adjuvant)*	 85% 15% 52% *(of disclosed cases)*
Mean follow-up (months)	22 [3-84]
Documented relapses (cases) Time between splenectomy and relapses (months)	11 mean 11 [4-27]

Conclusion

Further studies and case reporting are needed to strengthen evidence on management and prognosis for metachronous splenic metastases from CRC.

Appendix and References