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Bone Metastasis in Appendicular Skeleton: Rare Occurrence in Colorectal Cancer

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Bone Metastasis in Appendicular Skeleton: Rare Occurrence in Colorectal Cancer

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Introduction

- Colorectal cancer (CRC) is considered preventable cancer if diagnosed in the early stage.
- CRC is second leading cause of death from cancer in US.
- Bone metastases (BM) is an uncommon presentation in CRC and if it occurs, it involves the axial skeletal more than extremities.
- Many case studies also report that survival after BM is considerably poor than without BM.
- Cancer type and genetic mutations also play an important role in such metastasis.

Case Report

- 62-year-old female with pertinent Past Medical History of adenocarcinoma of colon with 5.4 cm Cecal lesion s/p right hemicolectomy with 0/14 positive lymph nodes.
- She received Capecitabine post-operatively.
- Approximately one and a half year later, patient developed progressive left knee pain.
- MRI knee showed left medial femoral condyle mass with associated soft tissue and bone scan showed increased uptake in the same area.
- Biopsy results showed adenocarcinoma consistent with colon primary.

Case Report(Cont.)

- PET CT showed parotid gland and lung nodule with a central mesentery node and a soft tissue density in T9-T10 anterior vertebrae.
- She was referred for palliative Radiation and chemotherapy- FOLFOX-Bevacizumab and bisphosphonate.

Relevant genetic studies:

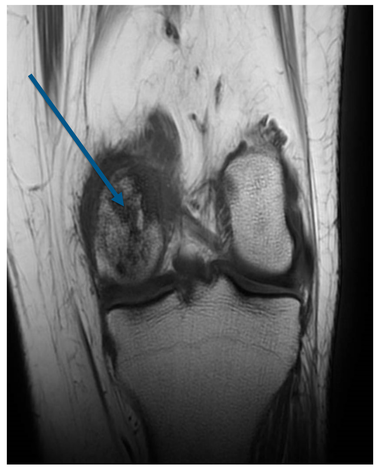
Adenocarcinoma type CRC - positive for CK-20 and CDX-2.

K-RUS mutation in codon 12 and 13

No NRAS, BRAF, V600E or V600K mutation

CEA- Within Normal Limit

Imaging



Results

- CRC is considered as a curable cancer if diagnosed in the early stage, but it can be deadly if metastasizes to other organ system.
- Some studies show that prognosis dependents on the site of metastasis. If metastases to liver or lung present and if they are resectable, prognosis is favorable.
- Nonetheless, bony metastasis is characterize as poor prognosis.
- Vatandoust & coworker suggested that with signet ring cell cancer, chances of getting BM is higher than other types of CRC (up to 23.7%).
- In our case, patient had adenocarcinoma type CRC and it is not commonly associated with BM.
- Our patient had BM involving appendicular skeleton that is an uncommon presentation. To add, patient had K-RUS mutation and that is also not common mutation type associated with BM.

Conclusion

- We suggest that more molecular studies related to K-RUS and other mutations, and their association with BM need to be done in CRC. It can also help deciding appropriate treatment plan at the early stage.

References

1. Vatandoust S, Price T, Karapetis C. Colorectal cancer: metastases to a single organ. World J Gastroenterol 2015;21:11767–76.
2. Li, A., Cao, Z., Liu, J., Huang, S., & Liu, Z. (2018). The risk factors for bone metastases in patients with colorectal cancer. Medicine, 97(40), e12694. doi:10.1097/md.0000000000012694
3. Nozue, M., Oshiro, Y., Kurata, M., Seino, K., Koike, N., Kawamoto, T., … Fukao, K. (2002). Treatment and prognosis in colorectal cancer patients with bone metastasis. *Oncology Reports*.

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