A Rare Case of Late Metastatic Disease from Granulosa Cell Tumor as a Solitary Hepatic Mass

James Pitcher, MD, Andrew Mims, MD, Vick DiCarlo, MD, Christina Birsan, MD, Laxmi Parsa, MD University of Tennessee College of Medicine at Chattanooga, Erlanger Hospital

Case Presentation

A 53-year-old female with a past medical history of bilateral granulosa cell tumor of the ovaries treated with bilateral salpingooophorectomy in 2009, GERD, and hepatitis C presented to the emergency department with lower abdominal pain and occasional hematochezia in early 2021. Advanced imaging of the abdomen and pelvis revealed a 4.3 x 3.7 cm exophytic mass in the right lobe of the liver. A CT-guided biopsy was performed, and pathology results showed that the tumor was positive for inhibin and focally positive for calretinin. The metastatic lesion was treated with microwave ablation. Unfortunately, recent MRI findings demonstrated new masslike/nodular enhancement that was suggestive of disease progression.

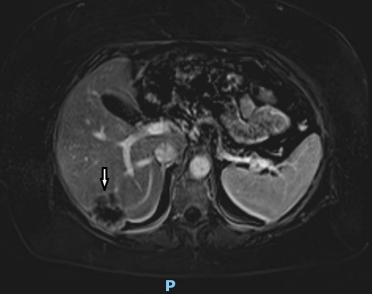


Figure 1: MRI revealing exophytic mass in the liver

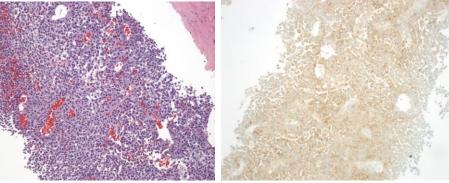


Figure 2: GCT at 10x

Figure 3: Inhibin stain at 10x

Discussion

- GCTs are a rare subtype of sex-cord stromal tumor that are primarily diagnosed as primary ovarian neoplasms
- Metastatic disease can occur at distant sites and greater than 10 years after diagnosis and surgical resection of the primary tumor
- Inhibin, a protein known to be produced by GCT, can be used to identify metastatic disease

Conclusion

- Metastatic disease from GCT can occur >10 years after surgical resection
- Importance of recognizing the risk of late metastatic disease from GCT even after apparent definitive surgical resection

References

Klair, J., Soota, K., Jesudoss, R., & Berkowitz, C. (2017). Gastric Metastasis of an Ovarian Granulosa Cell Tumor (GCT) Diagnosed in a Patient Presenting With Worsening Reflux. *American Journal of Gastroenterology*, *112*.; Mangili, G., Ottolina, J., Gadducci, A., Giorda, G., Breda, E., Savarese, A., Candiani, M., Frigerio, L., Scarfone, G., Pignata, S., Rossi, R., Marinaccio, M., & Lorusso, D. (2013). Long-term follow-up is crucial after treatment for granulosa cell tumours of the ovary. *British Journal of Cancer*, *109*(1).; Lappöhn, R. E., Burger, H. G., Bouma, J., Bangah, M., Krans, M., & de Bruijn, H. W. A. (1989). Inhibin as a Marker for Granulosa-Cell Tumors. *New England Journal of Medicine*, *321*(12).; Mom, C. H., Engelen, M. J. A., Willemse, P. H. B., Gietema, J. A., ten Hoor, K. A., de Vries, E. G. E., & van der Zee, A. G. J. (2007). Granulosa cell tumors of the ovary: The clinical value of serum inhibin A and B levels in a large single center cohort. *Gynecologic Oncology*, *105*(2).

