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Editorial

Solitary splenic metastasis from high grade ovarian carcinoma: An uncommon finding

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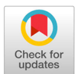

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Spleen is a lymphoid and highly vascular organ. Metastasis involving spleen by malignant tumors are extremely rare and constituting 0.6% of autopsy findings and the actual reported incidence of Splenic metastasis is 1.1% of splenectomy specimens.[1] When we searched the literature, only handful of cases were found of solitary metastasis of spleen from ovarian malignancies. It's a late complication as solitary lesion with poor prognosis.

In the Surgery OPD of our hospital, 52 yrs female came with pain and mass in left upper quadrant since 1 week.USG abdomen revealed a mass in hilar region measuring 9x4 cms with high vascularity with differential as Kochs,chronic abscess or metastasis. Patient has past history of operation for ovarian mass 7 yrs back with no reports available. Patient underwent splenectomy uneventful.

We received splenectomy specimen measuring 15x10x8cms.E/S- grey brown, globular with smooth surface (Figure 1). On C/S- Showed a grey white to tan mass in hilar region measuring 8x4x4cms.The tumor mass is seen infiltrating the adjacent splenic parenchyma (Figure 2). Rest of the spleen is appeared congested.

On multiple sections shows splenic parenchyma along with a tumor. The tumor is comprised of neoplastic cells arranged in solid, pseudopapillary, cribriform, glandular, pseudoendometrioid and transitional patterns (SET)

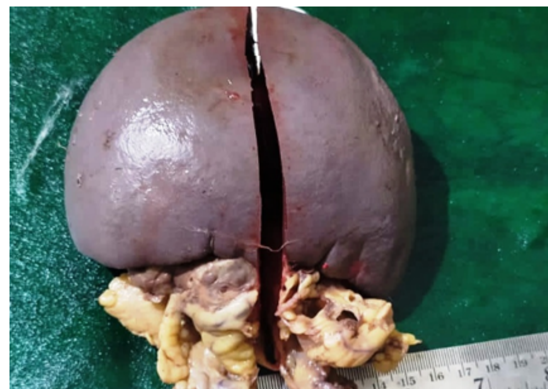

Figure 1: Gross of Splenectomy specimen with grey brown, globular with smooth surface.

(Figure 3). Tumor cells are columnar to cuboidal with eosinophilic hyperchromatic nuclei and pale cytoplasm (Figure 4). The pseudo papillae are lined by multilayered highly anaplastic cells with hyperchromatic nuclei with prominent macro nucleoli and scant amount of cytoplasm. Few anaplastic bizarre nuclei along with bizarre multinucleated giant tumor cells are also noted with atypical mitotic figures at places. Large areas of necrosis are noted in the cribriform patters of tumor cells. Rest of splenic parenchyma showed congestion and fibrosis. Final histopathological impression was given as -Metastatic High grade Serous Adenocarcinoma (SET pattern) –Splenectomy

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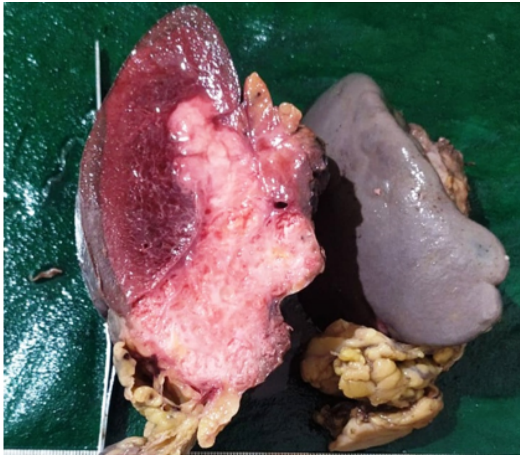


Figure 2: Cut section showed grey white to tan tumor mass in hilar region infiltrating the adjacent splenic parenchyma with rest of the spleen congested.

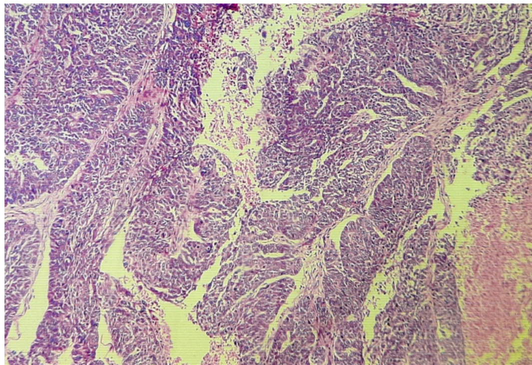


Figure 3: Light microscopy showed tumor comprised of neoplastic cells arranged in solid, pseudo papillary, cribriform, glandular, pseudoendometrioid and transitional patterns (SET) (H&E,x100).

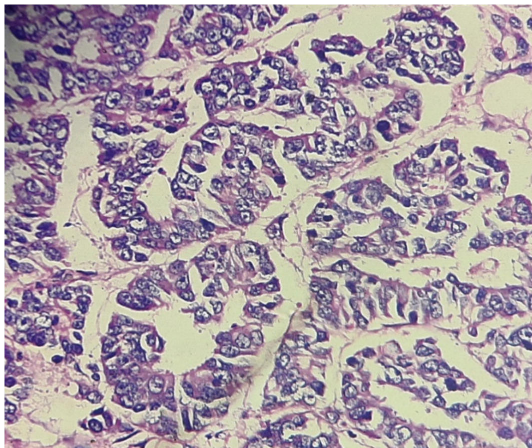


Figure 4: Tumor cells are columnar to cuboidal with eosinophilic hyperchromatic nuclei and pale cytoplasm (H&E,x400).

specimen. A note was put forth regarding SET pattern of high grade serous adenocarcinoma of Ovary is associated with BRCA1 mutation.

Solitary splenic mets by ovarian cancers are rare and only handful of 30 to 40 cases were reported in English literature.[1,2] The most common organ for metastasis for internal organs spread was liver and lungs. Spleen is unusual with reported incidence of 0.6% of autopsy cases and 1.1% of splenectomies performed.[1,2]

The most common mode of spread of tumors is by hematogeneous route followed by lymphatic and rare by implantation. As per LV et al[1] various causes are cited for unusual occurrence of solitary splenic metastasis as sharp angle made by splenic artery difficult for emboli to enter into the spleen. Tumor lodging is prevented by rhythmic contractions of spleen. Other causes are absence of afferent lymphatic's that brings tumor emboli to spleen and anti-tumor properties of spleen due to higher lymphoid tissue.[1,3,4] Due to pharmacological and immunological sanctuary, rarely metastatic tumor grows in spleen. Monoclonality as important role in splenic mets to grow.[3,4] We highlight the importance of solitary splenic metastasis by high grade serous carcinoma in the present editorial.

To conclude, combination of clinical manifestations, imaging studies and final histopathological diagnosis is key role in the diagnosis of rare solitary splenic metastasis.

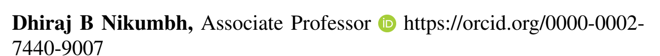
1. Conflict of Interest

None.

References

1. Lv M, Li Y, Luo C, Liu P, Yang J. Splenic metastasis of ovarian clear cell adenocarcinoma: A case report and review of the literature. *Exp Ther Med*. 2014;7(4):982–6.
2. Cormio G, Loizzi V, Carriero C, Putignano G, Selvaggi L. Spleen involvement in women with ovarian cancer. *Eur J Gynaecol Oncol*. 2009;30(4):384–6.
3. Siler J, Hunter TB, Weiss J, Haber K. Increased echogenicity of the spleen in benign and malignant disease. *AJR Am J Roentgenol*. 1980;134(5):1011–4.
4. Lauro S, Trasatti L, Capalbo C. Solitary splenic recurrence of epithelial ovarian cancer:a case report and review. *Anticancer Res*. 2002;22(68):3643–5.

Author biography



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