

## Ovarian Hemangioma – A Rare Case Report

Dr. S. S. Kumbhar<sup>1\*</sup>, Dr. Snigdha A. Vartak<sup>2\*</sup>

<sup>1</sup>Associate Professor, Department of Pathology, Krishna Institute of Medical Sciences, Karad, Maharashtra, India

<sup>2</sup>Tutor, Department of Pathology, Krishna Institute of Medical Sciences, Karad, Maharashtra, India

DOI: [10.36347/sjmcr.2022.v10i08.002](https://doi.org/10.36347/sjmcr.2022.v10i08.002)

| Received: 02.07.2021 | Accepted: 05.08.2021 | Published: 03.08.2022

\*Corresponding author: Dr. Snigdha A. Vartak

Tutor, Department of Pathology, Krishna Institute of Medical Sciences, Karad, Maharashtra, India

### Abstract

### Case Report

Ovarian hemangioma is a benign vascular tumor which is rare and often encountered as an incidental finding despite ovary being a vascular organ. Symptomatically, ovarian hemangiomas present when they are large and cause abdominal distension. Thorough pre-op clinical examination and post-op follow up is required. We present a case of a 65 year old post-menopausal woman with pain in abdomen with past history of LSCS and tubal ligation who was diagnosed histopathologically as ovarian hemangioma.

**Keywords:** Benign Ovarian tumors, Ovarian Hemangioma, Tubo-ovarian Mass.

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Ovarian hemangioma is a rare benign tumor of the female genital tract. Most ovarian hemangiomas are asymptomatic, of cavernous type, small and incidental findings at operation or autopsy [1]. Ovarian hemangiomas sometimes co-exist with genital tract diseases or even malignancies [2-4] Usual manifestations associated with ovarian hemangiomas including thrombocytopenia, acute abdomen with ovarian torsion, calcification and resultant misinterpretation, massive ascites and elevated Ca-125 levels mimicking ovarian cancer [2, 5-7] and hyperestrogenic or hyperandrogenic manifestations. Here we present a case of ovarian hemangioma which presented with complaints of pain in abdomen.

## CASE REPORT

We present a case of a 65 year old female who presented to the OPD at KIMSUDU, Karad with complaints of on and off pain in abdomen since 6 months which was not associated with any other symptoms and showed relief on medication. She had a history of tubal ligation 34 years back and her obstetric history was unremarkable. She is menopausal since 20 years. Her vitals were stable and general examination revealed no abnormalities. Per abdominal examination was unremarkable and revealed a scar of LSCS. Per speculum examination revealed a 10 x 10 cm mass (approximately weeks mass) felt in the right fornix with restricted mobility. Laboratory findings were within

normal limits. Serum CA 125 was 19.9 IU/L. Sonologically, the report suggested a right adnexal cyst – likely benign ovarian cyst. MRI findings revealed a multilocular cystic lesion with thick septae, not seen separately from the right ovary with no solid component or peritoneal deposits, features likely to represent a malignant epithelial ovarian neoplasm. Exploratory laparotomy followed by total hysterectomy with bilateral salphingoophorectomy with omentectomy was conducted and specimens were sent to the department of histopathology, KIMSUDU, Karad.

## GROSS EXAMINATION

We received an already cut open cystic specimen labeled as “Right Tuboovarian Mass” totally measuring 8.5 x 6.2 x 3.0 cm. External surface was grey white to grey brown and showed focal areas of congestion and few, small, firm, nodular areas. Cut spaces showed thinned out and thickened areas. An area measuring 3.5 x 2.5 x 1.5 cm which was grey brown and spongy was noted. Representative bits were given from spongy areas, thickened areas, thinned out areas and firm, nodular areas.



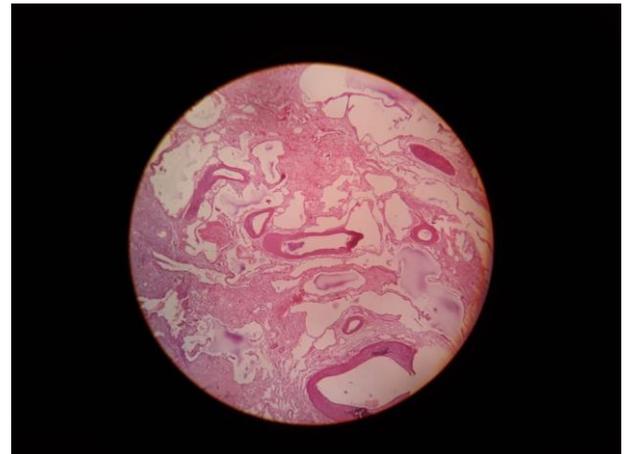
**Fig-1: Gross examination of ovary**



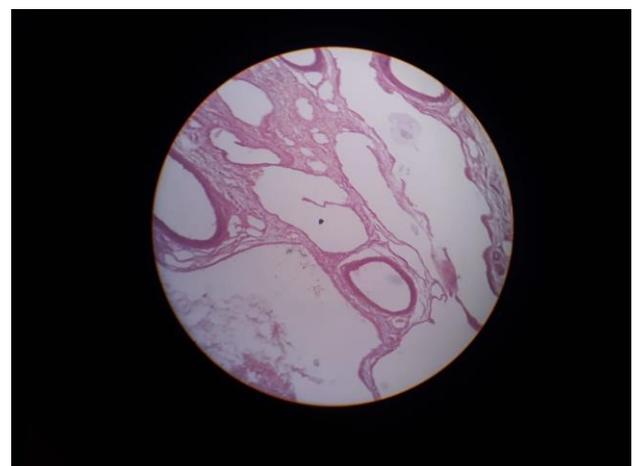
**Fig-2: Cut section of the ovary on gross examination**

## MICROSCOPY

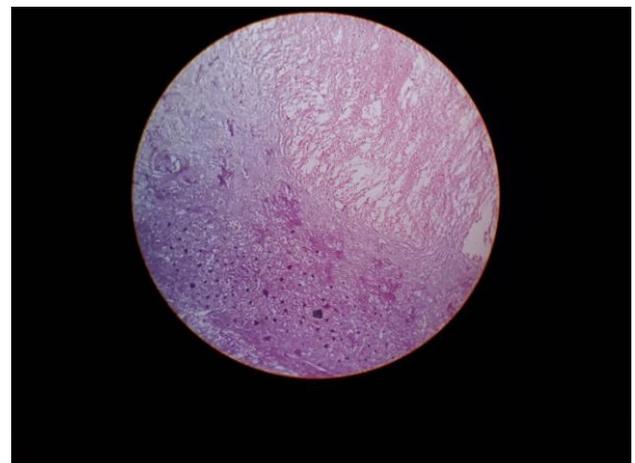
Microscopy revealed multiple thin walled blood vessels lined by flattened epithelium with no atypia or mitotic activity and the lumen was filled with RBCs and was diagnosed as primary ovarian cavernous hemangioma with secondary changes of hemorrhage, necrosis, chronic non-specific inflammation, dystrophic calcification, focal collagenisation and focal luteinization of stroma.



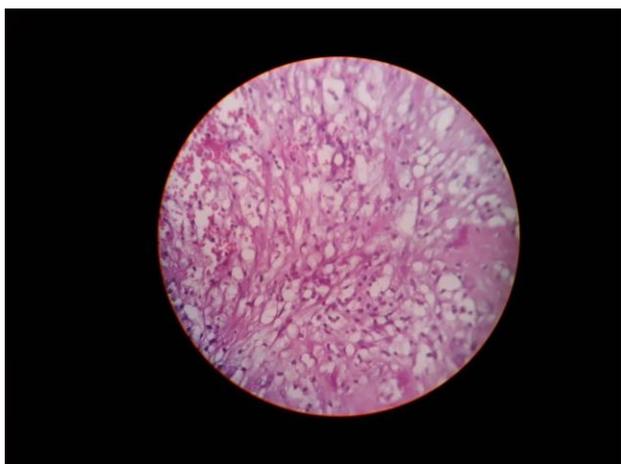
**Fig-3: Hemangioma of ovary**



**Fig-4: Hemangioma of Ovary**



**Fig-5: Hemangioma of ovary with secondary changes of necrosis and calcification**



**Fig-6: Hemangioma ovary with luteinization of stroma**

## DISCUSSION

Though ovary is a very vascular organ, vascular tumors in the ovary are rarely seen. They are neoplasms which can occur at variable ages ranging from as young as 4 months to as old as 81 years. Majorly, the ovarian hemangiomas are small and show no symptoms. The larger tumors, however, may present with distension of abdomen due to mass or pain in abdomen or vomiting. Histologically, hemangiomas are benign lesions arising from a failure in the vascular malformation particularly in the canalizing process, forming abnormal channels. The etiology of ovarian hemangiomas is not known yet. One hypothesis suggests that the initiator of development of ovarian hemangiomas is hyperestrogenism resulting from stromal hyperplasia or stromal hyperthecosis, which may result in endometrial stimulation. Another hypothesis suggests that the presence of an ovarian hemangioma is the primary event in the pathway leading to hyperandrogenism or hyperestrogenism. In this way, the stromal luteinisation that occurs in the presence of expansile ovarian lesions is usually restricted to the stroma of the neoplasm or to the ovarian stroma adjacent to the neoplasm. The vascular channels are varisized and show a flat single endothelial cell lining. The lumen may contain thrombosis and the intervening stroma may show hyalinization, calcification and occasionally luteinisation. Most tumors are unilateral, <1.5 cm in diameter, in the hilus or the medulla of the ovary and sharply separated from the adjacent tissue, a feature distinguishing them from normal vascular channels in the ovary. Differential

diagnoses of ovarian hemangiomas include normal medullary vasculature, lymphangiomas, cystic teratomas with prominent vascular component and angiosarcomas.

## CONCLUSION

Ovarian hemangiomas are infrequent type of benign vascular tumors and make up a differential diagnosis for hemorrhagic ovarian lesions. Thorough evaluation the patients clinically and radiologically before and after operation needs to be conducted and maintenance of follow up is also essential.

## REFERENCES

1. Shirazi, B., Anbardar, M. H., Azarpira, N., & Robati, M. (2015). An incidental ovarian mass: A case of ovarian hemangioma with prominent stromal luteinization. *Medical Journal of Dr. DY Patil University*, 8(2), 227.
2. Kim, S. S., Han, S. E., Lee, N. K., Choi, K. U., Joo, J. K., Suh, D. S., ... & Kim, K. H. (2015). Ovarian cavernous hemangioma presenting as a large growing mass in a postmenopausal woman: a case report and review of the literature. *Journal of menopausal medicine*, 21(3), 155-159.
3. Akbulut, M., Bir, F., Çolakoğlu, N., Soysal, M. E., & Düzcen, S. E. (2008). Ovarian hemangioma occurring synchronously with serous papillary carcinoma of the ovary and benign endometrial polyp. *Annals of Saudi medicine*, 28(2), 128-131.
4. Carder, P. J., & Goulesbrough, D. R. (1995). Ovarian haemangiomas and stromal luteinization. *Histopathology*, 26(6), 585-586.
5. Lawhead, R. A., Copeland, L. J., & Edwards, C. L. (1985). Bilateral ovarian hemangiomas associated with diffuse abdominopelvic hemangiomatosis. *Obstetrics and gynecology*, 65(4), 597-599.
6. Kim, M. Y., Rha, S. E., Oh, S. N., Lee, Y. J., Jung, E. S., & Byun, J. Y. (2008). Ovarian cavernous haemangioma presenting as a heavily calcified adnexal mass. *The British journal of radiology*, 81(971), e269-e271.
7. Erdemoglu, E., Kamaci, M., Ozen, S., Sahin, H. G., & Kolusari, A. (2006). Ovarian hemangioma with elevated CA125 and ascites mimicking ovarian cancer. *European journal of gynaecological oncology*, 27(2), 195-196.