



INCIDENTAL APPENDICEAL CARCINOID TUMORS CONCOMITANT WITH OVARIAN STROMAL LUTEOMA: A RARE CASE STUDY

Pathology

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ABSTRACT

We report a case of uterine fibroid with right ovarian stromal luteoma in abdominal hysterectomy specimen and also found incidentally Appendiceal Carcinoid tumor in the appendectomy specimens. A case of 44 years old women was come to gynecological department of RIMS, Ranchi, with the complaint of menorrhagia and lower abdominal pain since last 3 months. Medical history was unremarkable. Ultrasonography revealed heteroechoic lesion of 8.1x7.3 cm size noted in the lower segment of uterus suggestive of Intramural Fibroid. Then patient was undergone for Total abdominal hysterectomy (TAH) and bilateral salphingo-oophorectomy (BSO) along with appendectomy. The specimens were received in histopathology section of Department of Pathology, RIMS Ranchi.

KEYWORDS

Appendectomy, Carcinoid, Ovarian Stromal Luteoma.

INTRODUCTION:

Carcinoid tumors are the most common type of appendiceal tumor [1]. They are identified in less than 1% of appendectomy specimens [2] and are more common among adults than children, although they can present at any age. [3] It shows a slight female predominance, although these features may at least in part reflect the frequency of acute appendicitis among young patients and women undergoing gynecologic surgery [4]. They are nearly always asymptomatic, being found incidentally in appendectomy specimens. The prognosis is generally excellent. Tumors less than 1 cm have very low metastatic potential, those between 1 and 2 cm have a low risk, and tumors greater than 2 cm have a significant risk of lymph node metastases. [5]

Steroid Cell Tumor account for approximately 0.1% of ovarian tumors and are composed of large round or polyhedral cells that resemble lutein, Leydig, and adrenocortical cells. These tumors are divided into three major categories: stromal luteoma, Leydig cell tumor, and steroid cell tumor not otherwise specified (NOS)[6,7,8]. Approximately 20% of steroid cell tumors belong in the stromal luteoma category. These tumors occur over a wide age range, but they are rare in young women and usually develop after menopause (average age, 58 years). Approximately 60% are estrogenic and 12% androgenic. The most common presentation is with abnormal uterine bleeding, and an endometrial biopsy often reveals hyperplasia. Rare stromal luteomas are virilizing. The stromal luteoma is clinically benign.

In the present study, we present a case of Incidental Appendiceal carcinoid tumors concomitant with Ovarian Stromal Luteoma in a 44 year-old woman who was underwent for Total abdominal hysterectomy (TAH) with bilateral salphingo-oophorectomy (BSO), appendectomy. The specimens were sent to histopathology section of Department of Pathology, RIMS Ranchi.

Case Report:

A case of 44year old woman was come to gynecological department of RIMS Ranchi, with the complaint of menorrhagia and lower abdominal pain since last 3 months. Medical history was unremarkable. On examination per abdomen it was soft and tender. White blood count was 9800/ μ L with 75% granulocytes, hemoglobin 8 gm% and platelets 215000/ μ L. Ultrasonography revealed heteroechoic lesion of 8.1x7.3 cm size noted in the lower segment of uterus suggestive of Intramural Fibroid. Then patient was undergone for Total abdominal hysterectomy (TAH) and bilateral salphingo-oophorectomy (BSO) along with appendectomy. The specimens were received for biopsy to Department of Pathology RIMS Ranchi. We received tissue specimen of uterus and bilateral adnexa in one piece with fibroid in three pieces in one container and tissue specimen of appendix in one piece in another container. Received tissue specimens from uterus and cervix measuring 10x7x4.5cms. Fibroid measured alone was 7.5x7x7cms. A cut section shows whirling. Endomyometrial junction was well defined. We also noticed the small mass present in the right ovary measuring 1.5x1.5 cms. Bilateral fallopian tube and left

ovary were unremarkable. Received tissue specimen of appendix is measuring 4.5x1x0.5, yellow to brown in colour and firm in consistency. There is no apparent mass seen. The tissues were processed, sectioned and stained with hematoxylin and eosin. The slides were studied under light microscopy. On microscopy, section from appendix shows cells are composed of small nests with round nuclei, coarsely stippled (salt and pepper) chromatin, inconspicuous nucleoli, and eosinophilic cytoplasm. No vascular or perineural invasion was seen. Suggestive of appendiceal Carcinoid tumor.



Figure 1: Gross appearance of appendix with no apparent mass

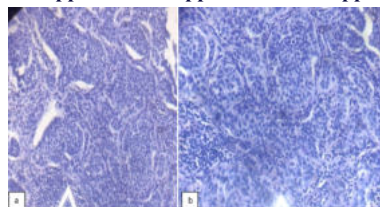


Figure 2: H&E 10x(a) and 40x(b) showing tumor are composed of small nests of cells with round nuclei, coarsely stippled(salt and pepper)chromatin

Microscopically section from right ovary shows a tumor is located in the stroma of right ovary showing luteinized stromal cells. The cells are polygonal, with granular eosinophilic cytoplasm and small, round, centrally placed nuclei. There is no nuclear atypia, and mitotic figures seen. Suggestive of Stromal Luteoma.

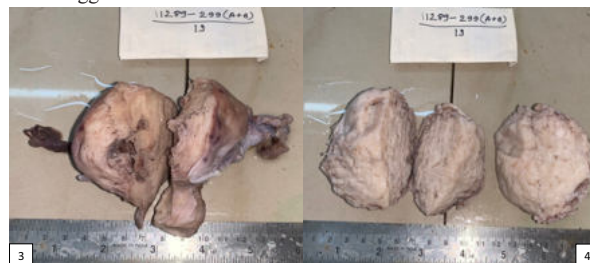


Figure 3: showing gross appearance of Uterus, cervix and bilateral adnexa

Figure 4: showing fibroid having whirling

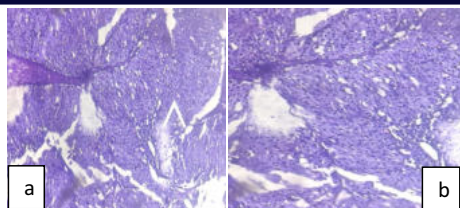


Figure 2: H&E 10x(a)&40x(b) showing tumor cells are polygonal, with granular eosinophilic cytoplasm and small, round, centrally placed nuclei.

DISCUSSION:

Carcinoid tumors were first described by a Swiss pathologist Theodor Langhans in 1867. These neoplasms are rare and of neuro-endocrine origin but is the most common tumor of the appendix, occurring in 0.226% of appendectomies performed at all ages [10].

The study done by Sharma S et al, they concluded that, appendectomy is enough for carcinoid tumors of the tip of the appendix, of small sizes, without vascular or perineural invasion [11].

The study done by V Vijayasree et al, they found that Incidence of appendicitis is high in adolescents and young adults and slightly higher in females. Negative appendectomy is also very common in females. Finally, an unusual finding such as carcinoid tumor in the clinically suspected acute appendicitis reflects the value of histological examination of every resected appendix, the presence of which would alter the further management [12].

One more study done by Murat Oz et al. Carcinoid of the appendix does not change the management of primary gynecologic disease in most cases, because the size of the carcinoid is less than 2 cm in these cases. But if the surgical margins are not intact, size of the carcinoid is more than 2 cm, malignant histological appearance of the carcinoid or involvement of mesoappendix or lymph nodes require further evaluation and treatment such as right hemicolectomy and/or chemotherapy [13].

In the same patient we also reported rare ovarian stromal tumor, this tumor is uncommon in premenopausal woman. The study done by C. Numanoglu et al they concluded that ovaries should be examined carefully with transvaginal ultrasonography to reveal any accompanying ovarian pathology in women with postmenopausal bleeding, and stromal luteomas should be considered as a reason for the postmenopausal bleeding, even though they are rare [14].

Finally we concluded that this is the very rare case in which appendiceal carcinoid concomitant with ovarian stromal tumor because we review many literature found that ovarian stromal tumor is very uncommon in premenopausal woman with incidental appendiceal tumor. These findings support the need for routine inspection of the appendix and management of appendiceal pathology at the time of gynaecological surgery.

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