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HISTOPATHOLOGICAL SPECTRUM OF LESIONS IN FALLOPIAN TUBE – A RETROSPECTIVE STUDY

Pathology

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ABSTRACT

Background – Fallopian tubes are one of the most common surgical specimen received in a Pathology laboratory. As the most extra uterine high grade serous carcinomas arise in tube increased attention has been received in fallopian tube histopathology. The aim of this study to study various spectrum of histopathological lesions in surgically resected specimens of fallopian tube and to identify the prevalence of lesions in various age groups. Materials & Methods – About 184 specimens of fallopian tubes were studied retrospectively which were received in our department either as tubectomy specimens or along with hysterectomy specimens. Results – Ectopic pregnancy (19.6%) was the most common pathology seen followed by acute salphingitis (13.1%). One case of tubal adenocarcinoma and one case of metastatic carcinoma was present in our study. Conclusion – Even though most of the findings are clinically not significant, careful examination of fallopian tube is necessary in patient care and accurate diagnosis is critically important.

KEYWORDS

Fallopian tube, Carcinoma, Histopathology

INTRODUCTION

Even from the embryological development fallopian tube has a very complex anatomy, starting from its vascular structure to its ciliated microstructure. The fallopian tube is a tubular hollow structure which measures about 11–12 cm in length. It runs throughout the apex of the broad ligament and spans the distance between the uterine cornus and the ovary. The fallopian tubes are one of the most common specimen received in the pathology laboratory. It can be examined either as salpingectomy specimen or along with hysterectomy or oophorectomy specimen. A wide range of disorders can be ruled out in this which has to be examined carefully.

MATERIALS AND METHODS

The data was collected retrospectively from the specimens and the histopathological slide sections that has been send and examined in our Pathology department during the period of January 2021 to October 2022. A total of 184 specimens were examined which were either salpingectomy specimen or along with hysterectomy or oophorectomy specimen. Gross and microscopic evaluation with Haematoxylin and Eosin stain were conducted in all the specimens and was correlated with other parameters.

Table 1. Spectrum of lesions

Fallopian tube Pathologies	Number of cases
Normal	70
Ectopic Pregnancy	36
Acute Salphingitis	24
Chronic Salphingitis	15
Paratubal cyst	17
Hydrosalphinx	13
Haematosalphinx	02
Endometriosis	03
Tumours	
Benign - Cystadenoma	02
Malignant –	
Primary carcinoma	01
Metastatic carcinoma	01
Total	184

RESULTS

A total of 184 specimens consisting of various gynecological lesions were studied thoroughly. The clinical diagnosis was uterine fibroid in majority of the cases followed by ovarian diseases. Most common age group of tubal lesions was 31-40 years in which 31.6% cases were seen followed by 41-50 years of age group in which 28.9% cases were seen.

Abnormal pathological findings of the fallopian tube comprised of ectopic pregnancy, acute and chronic salpingitis, hydrosalpinx, hematosalpinx, endometriosis, paratubal cyst, cystadenoma and tumors (Table 1). In 38.2% cases, fallopian tubes were unremarkable.

Maximum cases were was that of ectopic pregnancy (Fig 1) which comprised of 19.6% (36/184) cases. The majority of the cases were seen in the age group of 31-40 years. All cases of ectopic pregnancy was associated with chronic salpingitis in the same tube.

The next major pathology observed was acute salpingitis, constituting 13.1% (24/184) of cases. The majority of the cases of acute salpingitis were seen in the age group of 41-50 years. Chronic salphingitis was observed in 8.1 % (15/184) of cases. In majority of cases, acute salpingitis was found as an incidental finding in tubes removed along with other gynecological surgical procedures for treating various gynecological disorders.

The next major group was of paratubal cysts, constituting 9.3% (17/184) of cases. The majority of the cases were seen in the age group of 41-50 years.

Hydrosalphinx was seen in 13 cases followed by haematosalphinx and endometriosis in 2 and 3 cases respectively. 2 cases of cystadenoma was also observed.

One case each of primary fallopian tube adenocarcinoma (Fig 2) and a metastatic carcinoma (poorly differentiated endometrial carcinoma) (Fig 3) was seen in our study which was diagnosed in a 58 year old and 60 year old each respectively.

DISCUSSION

In this study, 70 (38.2%) cases were reported unremarkable and 114 (61.7%) cases were reported having tubal pathology. In our study, tubes with pathology has outnumbered the cases with unremarkable tubes which was correlating with studies done by Gon et al[3], Lakshmi et al [4] and Arora et al[5].

The most common histopathological finding in this study is ectopic pregnancy (19.6%). The incidence of ectopic pregnancy was higher in this study. Bagwan et al.[2] observed almost similar incidence of ectopic pregnancy (11.79%). Most of the patients in this study were in the age group of 31-40 years, with 36 cases, which was more when compared with the study by Dahiya et al.[9] in which, most of the cases were between the age group of 25 and 29 years.

The second most common finding in this study is acute salphingitis (13.1%) was higher as compared to other studies and almost all the cases were found incidentally on histopathological examination which correlates with incidence of acute salphingitis on study by Gon et al[3] .

In this study incidence of paratubal cysts is seen in 17 cases (9.2%). In this study, the incidence of paratubal cysts was higher which correlates with study by Kujur et al[7].

In this study, chronic salpingitis was seen in 15 cases (8.1%) . The incidence of chronic salpingitis was lower in this study as compared to other studies[7].

In this study, hydrosalpinx was seen in 13 (7.1%) cases. In this study, the incidence of hydrosalpinx was lower as compared to other studies[3,7].

In this study, hematosalpinx was seen in 2 cases. Gon et al[3] observed almost closer incidence of hematosalpinx (0.85%).

In this study, primary tubal malignancy is seen in one case. In the study by Gon et al[3] only one case of primary adenocarcinoma was seen in this study accounting for 0.03% of all the specimens. Primary fallopian tube carcinoma is a rare tumour of the female genital tract with an incidence of 0.1-1.8% of all genital malignancies[8,10].One case of metatstaic cancer was also there in our study which was consistent with the studies by Borgohain[11] Bagwan[2] and Kujur[7] et al.

CONCLUSION

Eventhough most of the fallopian tubes remain unremarkable in majority of specimens, it has to be subjected for careful histopathological examination to demonstrate the various pathological lesion. Routine and meticulous histopathological examination of the tubal fimbria helps to detect the early malignant changes within the tube. Through this study we emphasis the importance of routine histopathological examination of even the fallopian tubes without notable abnormalities.

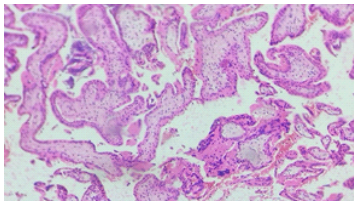

Figure 1; Ectopic Pregnancy

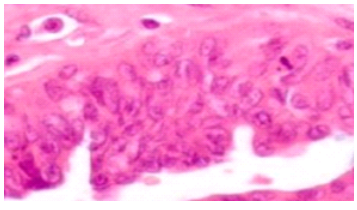

Figure 2; Primary Tubal carcinoma

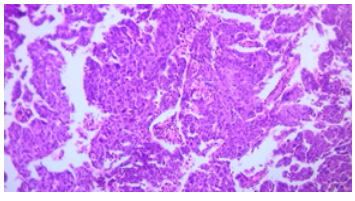

Figure 3; Metastatic carcinoma

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