



The Incidence of Fallopian Tube Primaries Reaches 15% of All Adnexal Tumors When Standard Grossing Protocols are Followed



R Wilcox, K Gwin and A Montag. Department of Pathology; The University of Chicago Medical Center, Chicago, Illinois.

Introduction

Fallopian tube (FT) primaries have been regarded as uncommon, comprising approximately 3% of adnexal tumors in most large series. Risk reducing salpingo-oophorectomies are an increasing choice for pts with BRCA gene mutations. Large studies of these specimens have led to a better understanding of adnexal carcinogenesis and the recognition of occult primary FT tumors, both in BRCA (+) pts and sporadic adnexal neoplasia. The true incidence of FT primaries was previously underestimated, as complete submission of the FT has not been standard procedure in adnexal carcinoma specimens. In 2006 our institution implemented a procedure, based on a modification of the Brigham Womens sectioning and extensively examining the fabricated end (SEE-FIM) protocol, for complete submission of ovaries and FTs (Figure1). This procedure is applied to any prophylactic salpingo-oophorectomy and all staging oophorectomies for ovarian carcinoma. The objective of our study was to assess if this standardized grossing procedure has had an impact on the number of FT primaries identified.

Design

Index cases (cases with the primary diagnostic material at the parent institution) of FT and ovarian carcinomas of all histologic types were identified from the institutional registry of neoplastic disease from the period 1989-2007. All cases had been diagnosed or secondarily reviewed by a gynecologic pathologist, in nearly all cases the same pathologist, over the 18 yr study period. The ratio of FT to all adnexal tumors was expressed as a percentage. For statistical analysis, data was aggregated into pre-protocol (1989-2005) and post-protocol (2006-7) periods 2x2 matrix and analyzed using χ^2 table.

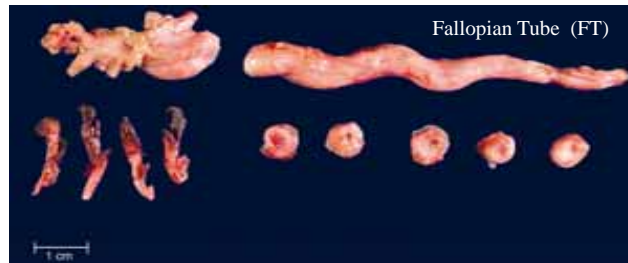


Figure 1. As part of the standardized grossing procedure the distal 2 cm of the FT is separated, cut longitudinally and submitted on edge. The remainder of the FT is cross-sectioned. The FTs, as well as the ovaries, are **entirely submitted**.

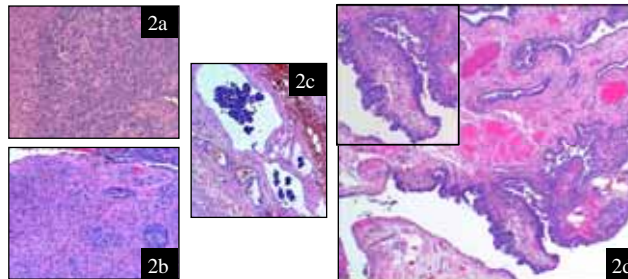
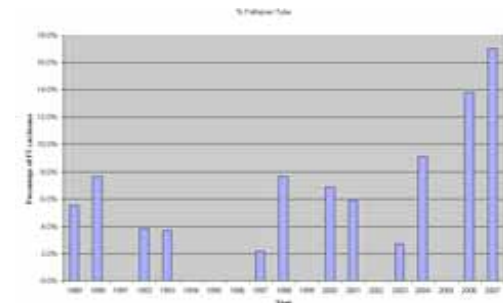


Figure 2. 52yr-old female who presented with an acute abdomen. Exploratory laparotomy revealed tumor involving bilateral ovaries and adnexa, peritoneum, omentum, appendix and liver (Figure 2a Liver metastasis; 2b Surface ovarian metastasis; 2c Lymphovascular invasion in adnexal soft tissue). Figure 2d shows in-situ serous carcinoma in the fallopian tube epithelium, implicating a fallopian tube primary.

Results

17 FT carcinomas were diagnosed from 1989-2005, and 11 cases from 2006-7. The pre-protocol incidence of FT carcinoma averaged approximately 3%, while the post-protocol incidence averaged 15% ($p < .001$).



Conclusions

- Standardized and complete sampling of the FT, particularly the fimbria, has led to an increase in the diagnosis of FT carcinoma.
- The present study illustrates that the actual incidence of Fallopian tube carcinoma is closer to 15% of all adnexal carcinomas, as opposed to the historical rate of 2-3%.
- When both the FT and ovary are involved, criteria for assigning the primary organ have not been well delineated.