

## **Determination Of The Nature And Neoplastic Potential Of Tubal - Peritoneal Junctions Other Than Fimberial Surfaces In Various Ovarian Tumors And Comparison Of Them With Control Cases**

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### **Abstract**

**Introduction:** One of the main problems in the study of the pathogenesis of malignant ovarian tumors is being heterogeneous in terms of genetic, molecular and clinical behavior. Many evaluations were performed on the origin of the tumor tissue and the mechanisms involved in these tumors formation. Another recent theory about the origin of ovarian tumors is based on this hypothesis that theses tumors origin from the Tubal Peritoneal Junction (TPJ) that is considered as a hot spot for carcinogenesis of genital tumors. So in this study, in various ovarian epithelial tumors, number, place of occurrence and histological changes occurring in these areas were examined and compared with hysterectomy and salpingectomy with nontumoral etiologies.

**Method:** A total of 30 cases of ovarian tumors, preferably from a variety of epithelial tumors(benign,borderline and malignat), selected, adjusted according to the protocol and all of bilateral fimbriae were removed with 2 mm intervals. In addition 3 slices from each ovary, 3 slices from another location of the tubes and 2 slices of bilateral round ligaments were removed. The prepared sections were studied to find the TPJ, metaplastic and preneoplastic changes. Above protocol

was performed in 30 patients that underwent hysterectomy and removal of tubes and ovaries with non-tumoral reasons.

**Results:** In the group with ovarian epithelial tumors, of 56 specimens of the fimbriae, 28 samples (50%) were normal and 28 (50%) samples had junctional areas (2 cases with atypia in fimbriae of 2 serous borderline tumors), of 56 specimens of the bilateral ligaments, all 56 samples (100%) were normal, of 56 specimens of the bilateral ovaries, 18 samples (32.14%) were normal and 38 samples (67.85%) had junctional areas (2 cases with atypia one in tumoral side and one in another side), of 28 specimens of the serosa, all 28 samples (100%) were normal. In patients with non-tumoral samples, of 56 specimens of the bilateral fimbriae, 31 samples (55.35%) were normal and 25 (44.64%) samples had junctional areas (2 cases with atypia), of 56 specimens of the bilateral ligaments, all 56 samples (100%) were normal, of 56 specimens of the bilateral ovaries, 21 samples (37.5%) were normal and 35 samples (62.5%) had junctional areas (no one had atypia), of 28 specimens of the serosa, all 28 samples (100%) were normal.

**Conclusions:** Based on our results, despite the higher incidence of pathologic findings in the case group than the controls in fimbriae and ovary specimens, this difference was not statistically significant. Considering these results, hypothesis of the origin of ovarian tumors from the peritoneal-tubal junction epithelium of the fimbriae could not definitively confirm.

**Keywords:** Tumorigenesis Potential, Tubal Peritoneal Junction, Ovarian Tumor, Histogenesis