[課程－２]

審査の結果の要旨

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Current WHO classification system, classifies ovarian mucinous tumors into mucinous cystadenoma (MA), mucinous borderline tumors (MBTs) and mucinous adenocarcinoma (MCa). The immunophenotype and histogenesis of these tumors are controversial. Different terminologies have been used to describe these tumors, since the immunophenotype of these tumors are not fully illustrated in the past. In terms of origin, different theories such as mature cystic teratoma and Brenner tumor origin have been previously described. Among these tumors MBTs are further subclassified into intestinal-type (IMBTs) and endocervical-type (EMBTs). Mucinous carcinomas are all considered to be of intestinal-type (IMCa). However, there is no such subclassification for MA category. This study clarified the phenotypes, and direction of differentiation of mucinous epithelium that constitutes MA, MBTs and MCas by immunohistochemistry. A panel of immunohistochemical markers has been used with special attention on the expression of claudin-18(CLDN18). CLDN18 is a tight junction protein, which is currently known as a gastric differentiation marker. Its expression in normal condition is strictly confined to the gastric-type mucinous epithelium. Its expression in neoplastic condition represents a gastric phenotype.

In this study the author found the following:

1. Intestinal-type and endocervical-type ovarian mucinous tumors are two distinct entities with completely different histology and immunophenotype. CLDN18 immunohistochemistry can accurately and easily distinguish between intestinal type and endocervical-type mucinous ovarian tumors.

2. Based on this study, ovarian mucinous tumors which have been conventionally regarded as intestinal-type are essentially consists of gastrointestinal-type epithelium. The predominant components are found to be gastric-type epithelium, rather than intestinal-type.
3. This study showed similar immunophenotypes for MAs, IMBTs and IMCas. Due to immunohistochemical similarities, IMCas can be considered as a malignant subtype of ovarian gastrointestinal-type mucinous tumor lineage, while MAs are benign counterpart, or in other word they are a precursor lesion for IMBTs and IMCas.
4. The results also realized that, CLDN18 immunohistochemistry has a significant role in distinction between IMCas, and non-mucinous subtypes of ovarian adenocarcinomas. It can also accurately distinguish IMCas from metastatic colorectal carcinomas involving the ovary which is clinically significant.
5. This study showed that mucinous cystadenoma consists of two different subtypes. The majority of which is gastrointestinal-type. Müllerian-type MAs which has different histology and immunophenotype is rather rare.
6. In terms of histogenesis, this study concluded that, in addition to, mature cystic teratoma and Brenner tumors, a subset of gastrointestinal-type mucinous ovarian tumors originate form Müllerian-duct derivatives such as endometriosis due to metaplastic/neoplastic process.

The data included in this study, which have been clarified the immunophenotype of epithelium in consecutive ovarian mucinous tumors, as well as the origin of a subset of gastrointestinal-type mucinous ovarian tumors are clinically significant, and sufficient for a degree.