P-45-B

Cathepsin D Deficiency Induces Autophagy in Neurons of Mouse Brain

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We show here how autophagy contributes to the accumulation of lysosomes with subunit c in cathepsin D deficient (CD–/–) mouse neurons. The participation of autophagy is evaluated by immunoblot and immunohistochemical analyses of LC3, a mammalian homologue of yeast Apg8p essential for autophagy. LC3 is present as a cytosolic form called LC3-I which is converted into LC3-II, a membrane bound form, when autophagy is induced. In control mouse brains, the amount of LC3-I predominated from postnatal day 0 (P0) to the adult stage, evidenced by immunoblotting, while that of LC3-II became higher from P8 in CD–/– brains than in the control brains. At this stage, P8, subunit c immunohistochemically appeared in neurons of CD–/– brains and became intense after P17. Immunostaining of LC3 revealed that diffuse or fibrillar immunoreactivity was detected in both the dendrites and perikarya of control neurons, whereas positive signals were diffuse and fibrillar in dendrites and granular in the perikarya of CD–/– neurons after P20. Our data suggest that autophagy is highly induced in CD–/– mouse brains, resulting in the accumulation of subunit c in lysosomes.

P-47-C

Expression of cytokeratins (cytokeratin7 and cytokeratin20) in the ovarian mucinous cancers and colorectal cancers

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INTRODUCTION; On the intrapelvic tumor, it is often difficult to determine primary organ of the tumor due to massive invasion to the multiple organ. Especially, ovarian cancers and colorectal cancers are similar histological architecture, and they are difficult to discriminate. Recently, it has turned out that expression pattern of cytokeratin subtypes changes with various site of tumors, using immunohistochemistry. This time, we analyzed the expression of cytokeratin7 (CK7) and cytokeratin20 (CK20) in mucinous ovarian cancers and colorectal cancers, and examined whether it would be useful to presumption of a primary site (ovary or colorectal site).
MATERIALS AND METHODS; Immunohistochemistry (indirect method) using monoclonal antibodies against for CK7 and CK20 were performed for surgical materials of each 32 cases of mucinous ovarian cancers and colorectal cancers.
RESULT; CK7 is positive for 30 cases of ovarian cancers and 2 cases of colorectal cancers. CK20 is positive for 17 cases of ovarian cancers and all cases of colorectal cancers. On this result, it was suggested that expression of CK7 is important in the judgment of ovarian cancers or colorectal cancers.