30.5%.

【Conclusion】 Nivolumab in recurrent or metastatic head and neck cancer has the potential to maintain good outcomes while preserving QOL.

3-2.

Infiltration of fibrosis- and tumor-associated macrophages on lung cancer with idiopathic pulmonary fibrosis

（社会人大学院博士課程 1 年呼吸器・甲状腺外科）
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【Background】 Idiopathic pulmonary fibrosis（IPF）is associated with an increased risk of lung cancer, and lung cancer with IPF is poor prognosis. The pathophysiological mechanism is unknown that lung cancer and pulmonary fibrosis coexist in the patients. We investigated the pathophysiology with infiltration of fibrosis- and tumor-associated macrophage（FAM and TAM）on lung cancer with IPF.

【Method】 Among 175 primary lung cancer cases under surgery from 2016 to 2018, 26 cases were made histopathological diagnosis as lung cancer with IPF. Nineteen cases were enough areas for the interpretation of immunohistochemistry（IHC）staining between normal lung tissue, carcinoma and fibrosis areas. IHC antibodies were CD206, CD163, CD68, S100A4 and CD204 to evaluate infiltration of macrophages. A case was simultaneous bilateral lung cancer with IPF, and each tumor with different progression was evaluated by infiltration of macrophages.

【Result】 In CD206, S100A4 and CD204, the infiltration in fibrosis was high frequency than that in normal lung and carcinoma（FAM）. The normal lung had higher infiltration than carcinoma in CD206 and CD204. The infiltration of CD206 and CD68 was 100% in carcinoma（TAM）. In normal lung, the advanced lung cancer cases had significant higher infiltration of FAM than the early stage cases. In the case of simultaneous bilateral lung cancer with IPF, the normal lung on the lobe with rapid growth cancer had FAM infiltration.

【Discussion】 It was suggested that the exacerbation of lung fibrosis as FAM infiltration influenced the progression of lung cancer.

3-3.

27-hydroxycholesterol promotes proliferation of non-small cell lung cancer as a selective estrogen receptor modulator

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【Introduction】 An oxysterol, 27-hydroxycholesterol（27HC）has been reported to promote the proliferation of breast cancer cells as selective estrogen receptor modulator（SERM）. We hypothesized that the 27HC may also promote the proliferation of lung cancer cells, because 27HC is mostly produced in alveolar macrophages by metabolizing of cholesterol through cytochrome P450 27A1（CYP27A1）in vivo. This research evaluated the relationship between 27HC content and the pathology in lung cancer tissue, and the effect of 27HC on the proliferation of cultured lung cancer cell line（H23）.

【Method】 In the tumor and nontumor regions of lung tissue collected from 25 patients with non-small cell lung cancer（NSCLC）who underwent surgery, we compared 27HC content and its synthetic and catabolic enzyme ex-

pressions（CYP27A1 and CYP7B1, respectively）, the expressions of estrogen receptor（ER）gene and its target gene c-Myc, using LC-MS/MS, RT-PCR, and immunohistochemical stain. In addition, we evaluated the effects of 27HC and estradiol（E2）treatments on the proliferation of H23 cell expressing ERβ.

【Result】 The 27HC content was significantly higher in the tumor region than in the nontumor region in proportion to the differentiation degree（Stages I-III）. The accumulation of the CYP27A1-positive macrophages around the tumor region and the significantly increased gene expressions of ERβ, CYP7B1, and c-Myc as well as cancer proliferation factors（VEGF and HIF1）were observed in the tumor region. In the cultured H23 cells, the proliferation was significantly increased by 27HC and E2 treatments for 48h.

【Conclusion】 Similar to breast cancer, the present results suggested that the 27HC promotes the proliferation of lung cancer cells through the SERM action and involves in the exacerbation of the disease.

3-4.

Differentiation between abscess and unnecessary intervention fluid after pancreas surgery using dual energy CT

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齋藤　和博

※抄録の掲載を辞退する。

4-1.

膵 high-grade solid-pseudopapillary neoplasm の臨床・病理学的検討

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Solid-pseudopapillary neoplasm（SPN）of the pancreas is a rare tumor that predominantly occurs in adolescent girls and young women, and most of these tumors have a favorable prognosis. However, two cases of clinically aggressive SPN（hereafter referred to as high-grade SPN）were reported in 2005. Regarding high-grade SPNs, the current WHO blue book（2019）states that “SPNs with foci of high-grade malignant transformation are considered a histological subtype”. High-grade SPNs are assumed to require a different clinical approach from conventional SPNs. Although clinicians and pathologists need to know a disease entity of high-grade SPN, it is not well recognized at present because high-grade SPNs are quite rare. The definition and characteristics of high-grade SPNs are still unclear. including whether high-grade SPNs always develop from conventional SPNs. We examine the clinical and pathological features of high-grade SPNs to clarify their detailed characteristics.