

3-①-5.

Reduced serum miR-100 as a potential biomarker for cervical cancer

(社会人大学院博士課程3年東京医科大学産科婦人科学分野)

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Objective : In this study, we measured the expression level of miR-100 in serum to investigate whether miR-100 can be used as a biomarker in diagnosis of cervical cancer.

Methods : We extracted total RNA from serum in 46 cervical cancer patients (CC), 64 cervical intraepithelial neoplasm patients (CIN) and 34 healthy volunteers (NC) after informed consent was obtained. The expression level of miR-100 was measured in each sample using quantitative real-time RT-PCR. The cut-off value of miR-100 in serum was set based on an ROC curve. We also examine the correlation between miR-100 levels and clinicopathological factors, such as pathology, stage, lymph node metastasis and prognosis.

Results : The relative levels of miR-100 in serum were 5.32 ± 3.39 in the NC, 3.93 ± 2.52 in the CIN and 1.84 ± 1.72 in the CC, with significant difference between NC and CC ($p < 0.001$). According to the ROC curve, the AUC was 0.879 and the cut-off value in serum was set at 2.451. The level of miR-100 in the lymph node metastasis positive group was significantly lower than that in the negative (0.98 ± 0.36 and 2.13 ± 2.15 , $p = 0.01$).

Conclusions : MiR-100 in serum may be useful as a biomarker for cervical cancer.

3-①-6.

Establishment of DICER1 syndrome model mice

(大学院博士課程4年分子病理学分野)

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DICER1 syndrome is an inherited disease that causes malignant and benign tumors. Recently, characteristic mutations in DICER1 gene have been found in many

diseases, including hepatocellular carcinoma (HCC), collectively called DICER1 syndrome. DICER1 is member of RNase III and essential for microRNA (miRNA) maturation. RNase IIIa and RNase IIIb domains of DICER1 process miRNA-3p and miRNA-5p arms of pre-miRNA, respectively. In DICER1 syndrome, missense mutations are frequently detected in the RNase IIIb domain. It is thought that this disease develops by impairment of miRNA-5p processing. However, the pathogenic mechanism has yet to be elucidated. To elucidate the mechanism of HCC development in DICER1 syndrome, we have established mice with liver-specific expression of DICER1G1809R, a mutation frequently detected in DICER1 syndrome. miRNA assay confirmed that the expression of miRNA-5p significantly reduced in the liver of DICER1G1809R expressing mice. Moreover, this mouse showed hepatocellular carcinoma, and mesenchymal hamartoma. Taken together, we established a DICER1 syndrome model mouse that expresses a DICER1 mutant and develops HCC. The mouse model is expected to promote the elucidation of the pathogenic mechanism of DICER1 syndrome and the development of therapeutic agents.

3-①-7.

前頸部皮下に発生した骨外骨肉腫の症例

(形成外科)

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[はじめに] 骨外性骨肉腫は全骨肉腫の4-5%程で、全ての軟部肉腫の1%以下と報告されている。約70%は四肢に発生し、頭頸部の発生は約5%程である。今回我々は頸部に発生した非常に稀な骨外性骨肉腫を経験したので報告した。

[症例] 27歳男性。1年前より左頸部の腫瘍を自覚しており、増大傾向のため当院を受診した。生検を施行し、肉腫の疑いとなった。舌骨筋群を含む拡大切除と頸部リンパ節郭清、大胸筋皮弁術を施行した。術後経過に問題なく、術後16日に退院となった。

病理診断結果は断端陰性であり、骨外性骨肉腫の診断となった。追加の化学療法を提案したが、他国に帰国し終診となった。

[考察] 骨外性骨肉腫は予後不良の悪性腫瘍であり、頭頸部領域原発の報告例は少ない。稀な症例であり、文献的考察を含めて報告した。

3-①-8.

Transoral endoscopic examination of the oropharynx with tongue protrusion, phonation and open mouth

(耳鼻咽喉科・頭頸部外科)

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The prevalence of superficial carcinomas of the oropharynx and the increase in HPV-positive oropharyngeal carcinomas meant that establishing an endoscopic diagnosis procedure for such cancers is of high importance. Therefore, we examined the diagnostic performance of the tongue protrusion with phonation and open mouth (TOPPOM) method for visualizing structures of the oropharynx. We enrolled 20 healthy volunteers and performed transoral endoscopy to evaluate 12 subsites of the oropharynx under three conditions: open mouth (OM), during phonation with open mouth (POM) and with TOPPOM. A score was assigned for each subsite; 2 points were given if the whole of the subsite could be clearly observed, 1 point if it could be partially observed, and 0 points if it could not be observed at all; scores were summed to give a total score (out of 48) for each condition. Images of the adjacent mucosa were similarly scored depending on how well the dendritic vasculature in the background could be observed. The total scores were significantly higher for TOPPOM compared with POM and during POM compared with OM. This order of scores was observed for the both palatine arches, both palatine tonsils, left lingual tonsillar sulcus and vallecula. The TOPPOM condition enables observation of the oropharynx through transoral endoscopic examination. However, it is difficult to observe deep subsites tangential to the endoscope; thus, performing with conventional transnasal endoscopy may enable early detection of

oropharyngeal carcinoma and oropharyngeal lesions including malignancies as well as informing pre- and post-treatment evaluations for oropharyngeal diseases.

3-②-1.

Initial histopathological evaluation for needle tract seeding caused by EUS-FNB based on the Whipple resection specimens in patients with pancreatic solid masses: analysis of consecutive 73 resected cases

(社会人大学院博士課程4年消化器内科)

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【Background and Aims】 Endoscopic ultrasonography-guided fine-needle biopsy (EUS-FNB) is a useful and safe method for preoperative diagnosis of resectable pancreatic solid masses. However, recently needle tract seeding (NTS) after EUS-FNB has been reported and the possibility of influence of longterm outcome for such patients. The aim of this study is to evaluate NTS after EUS-FNB.

【Methods】 We reviewed 73 resected cases that underwent preoperative EUS-FNB for pancreatic tumor from April 2014 until March 2016 and evaluated the utility and adverse events of EUS-FNB based on the consecutively resected pathological specimens.

【Results】 The final diagnoses of pancreatic tumors in which Whipple resection was undergone, were 67 pancreatic ductal adenocarcinomas, 5 neuroendocrine neoplasms, and 1 acinar cell carcinoma. Diagnostic accuracy of preoperative EUS-FNB was 98.6%. Clinical adverse events were observed in 4.1% (2 bleeding and 1 acute pancreatitis) and pathological abnormal findings were in 4.1% (2 needle tract seeding and 1 acute focal pancreatitis).