

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

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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).

【Conclusions】 Although EUS-FNB has been useful for preoperative diagnosis of pancreatic tumors, we may reconsider the risk of NTS and its adaption of EUS-FNB for resectable pancreatic solid masses unless tract will be resected by scheduled resection.

3-②-2.

Irreversible electroporation (IRE) による腫瘍特異的 T リンパ球の腫瘍内誘導に関する検討

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【背景】 近年、免疫チェックポイント阻害薬が様々な癌腫において臨床応用されている。肝癌においても臨床試験が行われたが奏効率は2割程度であり、単剤での治療効果は限定的であると考えられ、治療効果を高める戦略が必要である。穿刺局所治療の一種である Irreversible electroporation (IRE) は様々な癌腫に対し行われている。IRE は腫瘍局所での immunogenic cancer cell death を引き起こすことが可能であり、免疫チェックポイント阻害薬と併用することで治療効果の増強が期待できる。今回我々は、予備的検討として IRE により腫瘍特異的 cytotoxic T lymphoma (CTL) が誘導されるかにつき検討した。なお、本研究は『令和元年度東京医科大学研究助成金』によるものである。

【方法】 4T1-HA を接種することにより (day 0)、担癌モデルマウスを作製した (n=16)。これらのマウスを非治療群 (n=6) と治療群 (n=10) に群別した。治療群には Day8 に IRE を以下の条件で行った (電圧: 750 V, パルス長: 90 μ s, パルス数: 90)。Day 15 と 21 に非治療群 (n=3)、治療群 (n=5) をそれぞれ安楽死させた。その後腫瘍を摘出し腫瘍内の HA-tetramer 陽性細胞を flow cytometry により解析した。

【成績】 Day 15、21 における HA-tetramer+CD8+細胞の1グラム当たりの細胞数はそれぞれ治療群 (day 15: $8.0 \times 10^4 \pm 5.4 \times 10^4$; day 21: $3.5 \times 10^4 \pm 2.1 \times 10^4$)、非治療群 (day 15: $2.8 \times 10^4 \pm 3.1 \times 10^4$; day 21:

$9.5 \times 10^3 \pm 4.9 \times 10^3$) であり治療群に多い傾向が認められた (p=0.2, p=0.09)。

【結論】 IRE を行うことで腫瘍内に腫瘍特異的 CTL を誘導することが可能であった。本検討は予備的検討であり、今後は匹数を増やして検討するとともに、免疫チェックポイント阻害薬との併用の有用性について検討する予定である。

3-②-3.

Urinary charged metabolite profiling of colorectal cancer using capillary electrophoresis-mass spectrometry

(社会人大学院博士課程4年消化器外科・小児外科)

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Colorectal cancer (CRC) has increasing global prevalence and poor prognostic outcomes, and the development of low- or less invasive screening tests is urgently required. Urine is an ideal biofluid that can be collected non-invasively. In the present study, we used capillary electrophoresis-time-of-flight mass spectrometry to quantify hydrophilic metabolites in 247 subjects with CRC or polyps, and healthy controls. The metabolic profiles were assessed based on 154 quantified metabolites. We identified stage-specific differences in metabolic profiles within the CRC group. Multiple logistic regression (MLR) models using three metabolites were developed using a randomly designated training dataset, and validated using the remaining data, which yielded an area under the receiver operating characteristic curve (AUC) of 0.707 (95% confidential interval [CI]: 0.576 - 0.839, P < 0.0042) to differentiate CRC from polyps and healthy controls based on a panel of urinary metabolites. We also applied a different MLR model using three metabolites to differentiate CRC and polyps from healthy controls that