

317 ROIs were annotated. We examined 347,744 nuclei in total. Based on stepwise discriminant analysis, we selected 49 specific features. Canonical discriminant analysis showed a predictive accuracy of 100%. Table 1 shows results of the SVM model that used 64 images obtained from 6 patients; the accuracy, sensitivity, and specificity were 84%, 91%, and 73%, respectively. The predictive model showed that 8 and 3 images were false positive and false negative, respectively.

【Conclusions】 Our results suggest that quantitative nuclear morphology analysis of bladder cancer has the potential to provide objective interpretation of nuclei heterogeneity and recurrence prediction.

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P2-24

Analysis of heterogeneity in uveal melanoma cell lines using flow cytometry

(眼科)

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【Purpose】 Recently heterogeneity in some malignant tumors has attracted much attention as a mechanism of resistance to treatment. In this study, we analyzed the heterogeneity in uveal melanoma cell lines using flow cytometry.

【Methods】 Three uveal melanoma cell lines; 92-1, OMM1 and TMU (established in Tokyo Medical University), were analyzed using flow cytometry after immunostaining (CD9, CD10, CD29, CD44, CD49b, CD49d, CD49e, CD49f, CD54, CD57, CD63, CD117, CD133, CD151, CD166, CD171, CD271, CD324 and A2B5). To identify cell surface markers for heterogeneity, we explored cell surface markers that can divide uveal melanoma cell line into 2 groups (positive and negative) by fluorescence intensity. Moreover, we co-cultured each uveal melanoma cell line (divided into positive and negative groups) and MART-1 specific T cells with melanoma antigen-specific cytotoxic T cells, and compared IFN- γ production between positive and negative cells.

【Results】 Three cell surface markers; CD57, CD151 and CD271, were able to divide all cell lines into positive

and negative groups based on fluorescence intensity. The production of IFN- γ decreased in CD57-, CD151+ and CD271+ cells compared to CD57+, CD151- and CD271- cells, respectively.

【Conclusion】 These results suggest the existence of heterogeneity and populations of cells that are resistant to treatment in uveal melanoma cell line. Heterogeneity among melanoma cells may account for the finding of some uveal melanomas refractory to conventional treatment.

P2-25

CHARACTERISTICS OF ENDOSCOPIC FEATURES IN JUVENILE POLYPS IN ADULTS : NO LONGER REMOVAL OF POLYPS ?

(社会人大学院博士課程 1 年消化器内科学)

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【Background】 Juvenile polyps are the most common gastrointestinal polyps in children, but they are relatively rare in adults, and there are few collective reports of endoscopic features. Even in Japan, where Narrow Band Imaging observation and Magnifying Chromoendoscopy have become common, accurate diagnosis is often impossible when encountered.

【Aims and Methods】 We retrospectively evaluated 80 lesions in 77 cases of juvenile polyps of the colon and rectum resected endoscopically and diagnosed pathologically between January 2013 and October 2018 in our hospital. Of these, only 25 had a correct diagnosis of juvenile polyps.

We compared Group A (25 patients who could be diagnosed correctly) with Group B (55 patients who could not be diagnosed correctly), and investigated the causes of the incorrect diagnosis.

【Results】 Seventy-seven cases were male/female : 62 (80.5%) cases/15 (19.4%), median age 54 (27-85), and symptoms were present in only 8 (10%). The location was 61 polyps (76.3%) in the left colon (27 in the sigmoid colon, 27 in the rectum, and 7 in the descending colon) and 19 polyps (23.7%) in the right colon (13 in the transverse colon, 5 in the ascending colon, and 1 in the cecum). The median diameter of the polyp was 7 mm (range, 3-25 mm), and the macroscopic appearance was subpedunculated in 39 polyps (48.8%), pedunculated in 27 polyps (33.7%), and sessile in 14 polyps (17.5%). Redness was observed in 74 polyps (92.5%), erosion in 54 polyps (67.5%), and white coat in 34 polyps (42.5%), which corresponded to previously report endoscopic findings in juvenile polyps. Group A had 22 polyps (88.0%) in the left colon (14 in the rectum, 6 in the sigmoid colon, 2 in the descending colon) and 3 polyps (12.0%) in the right colon (2 in the transverse colon, 1 in the ascending colon), with a median polyp diameter of 8 mm (4-25 mm), macroscopic appearance was subpedunculated in 13 polyps (52.0%), pedunculated in 9 polyps (36.0%), and sessile in 3 polyps (12.0%). Redness was observed in 24 polyps (96.0%), erosion in 21 polyps (84.0%), and white coat in 16 polyps (64.0%). On the other hand, group B had 39 polyps (70.9%) in the left colon (21 in the sigmoid colon, 13 in the rectum, 5 in the descending colon) and 16 polyps (29.1%) in the right colon (11 in the transverse colon, 4 in the ascending colon, 1 in the cecum), with a median polyp diameter of 9 mm (3-25 mm), macroscopic appearance of 26 subpedunculated (47.3%), 18 pedunculated (32.7%), and 11 sessile (20.0%).

Redness was observed in 50 polyps (90.9%), erosion in 33 polyps (60.0%), and white moss in 18 polyps (32.7%). There were no significant differences between the two groups in the location, diameter, macroscopic appearance, and presence or absence of redness of polyps. But polyps without erosion or white coat were misdiagnosed with a significant difference ($p<0.05$). The most common false diagnoses were adenomas (37 polyps, 67.3%), polyps (9 polyps, 16.3%), inflammatory polyps (6 polyps, 10.9%), and early colorectal cancer (3 polyps, 5.5%).

【Conclusion】 In our study juvenile polyps without erosion or white coat were more likely to be misdiagnosed as adenomas. Thus when the endoscopist encounter a lesion, which is difficult to diagnose, it is important keeping juvenile polyp in mind, especially when there is duct dilation, which suggest strongly of juvenile polyp.

P2-26

Clinical significance of urinary titin in cancers of the digestive system

(社会人大学院博士課程 1 年消化器外科学)

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【Purpose】 Regarding cancers of the digestive system, depending on the condition thereof, sarcopenia can often be seen prior to surgery. Having sarcopenia prior to surgery is known to greatly affect life prognosis. Sarcopenia is evaluated by skeletal muscle mass and biochemical examinations, etc., with the development of a new biomarker that reflects the condition of muscle catabolism expected. Titin, which is a giant elastic muscle protein existing in skeletal muscle or sarcomeres, which are cardiac muscle cells, is known to exhibit a high value among patients with myocardial infarction or muscular dystrophy. In this study, we measured urinary titin to analyze the relation with the blood test indexes of sarcopenia and examined if it is effective in evaluating sarcopenia.

【Method】 The subjects were 51 patients with cancers of the digestive system hospitalized in the main hospital, including 31 males and 20 females, with a mean age of 72 (35-85). The breakdown of the diseases was 20 patients with gastrointestinal cancer and 31 patients with hepatic, biliary and pancreatic diseases. We made a comparison between the items of blood biochemistry testing and urinary titin.

【Result】 Titin exhibited negative correlations with albumin ($r=-0.096$, $p=0.001$), prealbumin ($r=-0.644$,