

## 主な研究課題・発表論文

放射線医学講座 Radiology

研究領域 構造解析病態医学

教授 伊東 克能 Katsuyoshi Ito

Web ページ : <http://ds.cc.yamaguchi-u.ac.jp/~radiants/>

### 主な研究課題

- Multiparametric MRIを用いた脾胆道機能・動態評価と胆脾関連疾患診断への臨床応用
- 糖尿病患者におけるMultiparametric MRIを用いた脾臓の内外分泌機能評価
- 局所励起を用いた脾癌の拡散強調像の画質評価に関する研究
- CT画像を用いた脾臓脂肪蓄積の定量に関する検討
- 肝臓における脂肪沈着の有無とCT造影効果に関する検討
- 肝臓のT1マッピングにおける脂肪抑制の影響の検討
- 管電圧70kVで撮像したCTとDual Energy CTの比較検討
- 人工知能を用いた慢性肝炎・肝硬変患者のCT画像におけるHCC発癌予測
- 自由呼吸下での肝臓ダイナミック造影MRIを用いた造影パターンに関する研究
- 胆嚢結石と冠動脈疾患の関連性：CT, MRIによる検討
- 原発性肺腺癌のCT解析
- Spread through air spaces (STAS)の有無による原発性肺腺癌のCT所見の比較検討
- 新型コロナウイルス感染症の重症度と脂肪肝や脾脂肪置換との関連性についての検討
- 胆管ステント留置後の肝臓EOB-MRIにおける転移性肝腫瘍との鑑別を要する肝病変の画像的特徴：胆管炎の関与についての検討
- 超高精細CTによる胃壁構造や胃癌深達度の描出能に関する検討
- 直腸癌における局所励起を用いた拡散強調画像の検討：従来の拡散強調画像との比較
- 頭頸部悪性腫瘍における造影T1強影像の画質評価に関する検討
- 真珠腫性中耳炎のMRI診断における拡散強調像の有用性に関する研究
- 唾液腺基底細胞腺腫のMRI画像所見の検討（多形腺腫、ワルチン腫瘍との比較）

### 発表論文

1. Tanabe M, Onoda H, Higashi M, et al: Three-Dimensional (3D) Breath-Hold Zoomed MR Cholangiopancreatography (MRCP): Evaluation of Additive Value to Conventional 3D

- Navigator Triggering MRCP in Patients With Branch Duct Intraductal Papillary Mucinous Neoplasms. *J Magn Reson Imaging* 55: 1234-1240, 2022.
2. Onoda H, Tanabe M, Higashi M, et al: Assessment of gastric wall structure using ultra-high-resolution computed tomography. *Eur J Radiol* 146: 110067, 2022.
  3. Okada M, Ihara K, Miyoshi K, et al: Portal vein embolization via the ipsilateral percutaneous transhepatic approach versus laparoscopic transileocecal approach: complications, profile and changes in future liver remnant volume. *Br J Radiol* 95: 20210854, 2022.
  4. Kunihiro Y, Tanaka N, Kawano R, et al: High-resolution CT findings of pulmonary infections in patients with hematologic malignancy: comparison between patients with or without hematopoietic stem cell transplantation. *Jpn J Radiol* 40: 791-799, 2022.
  5. Higashi M, Tanabe M, Yonezawa T, et al: The pancreatic exocrine function in patients with pancreatic endocrine insufficiency: the evaluation with cine-dynamic magnetic resonance cholangiopancreatography using a spatially selective inversion-recovery pulse and T1 mapping. *Jpn J Radiol* 40: 696-702, 2022.
  6. Higashi M, Tanabe M, Ihara K, et al: Bile Flow Dynamics in Patients with Cholelithiasis: An Evaluation with Cine-Dynamic Magnetic Resonance Cholangiopancreatography Using a Spatially Selective Inversion-Recovery Pulse. *Tomography* 8: 815-823, 2022.
  7. Tanabe M, Tanabe M, Furukawa M, et al: Assessment of the relationship between the hepatic contrast enhancement effect in the hepatobiliary phase and hepatic signal changes in free-breathing continuous multiphasic dynamic EOB-MRI. *Eur J Radiol* 144: 109959, 2021.
  8. Tanabe M, Higashi M, Yonezawa T, et al: Feasibility of high-resolution magnetic resonance imaging of the liver using deep learning reconstruction based on the deep learning denoising technique. *Magn Reson Imaging* 80: 121-126, 2021.
  9. Tanabe M, Higashi M, Iida E, et al: Transient respiratory motion artifacts in multiple arterial phases on abdominal dynamic magnetic resonance imaging: a comparison using gadoxetate disodium and gadobutrol. *Jpn J Radiol* 39: 178-185, 2021.
  10. Tanabe M, Higashi M, Benkert T, et al: Reduced Field-of-View Diffusion-Weighted Magnetic Resonance Imaging of the Pancreas With Tilted Excitation Plane: A Preliminary Study. *J Magn Reson Imaging* 54: 715-720, 2021.
  11. Kunihiro Y, Tanaka N, Kawano R, et al: Differentiation of pulmonary complications with extensive ground-glass attenuation on high-resolution CT in immunocompromised patients. *Jpn J Radiol* 39: 868-876, 2021.
  12. Kameda F, Tanabe M, Higashi M, et al: The extracellular volume fraction of the pancreas measured by dual-energy computed tomography: The association with impaired glucose

- tolerance. *Eur J Radiol* 141: 109775, 2021.
- 13. Ihara K, Onoda H, Tanabe M, et al: Hemodynamic changes of abdominal organs after CT colonography with transrectal administration of CO<sub>2</sub>: evaluation with early-phase contrast-enhanced dynamic CT. *Jpn J Radiol* 39: 900-906, 2021.
  - 14. Higashi M, Tanabe M, Ihara K, et al: Pancreatobiliary Flow Dynamics: Association Between Bile and Pancreatic Juice Evaluated With Cine-Dynamic Magnetic Resonance Cholangiopancreatography Using Spatially Selective Inversion Recovery Pulse. *J Magn Reson Imaging* 54: 1902-1911, 2021.
  - 15. Miyoshi K, Onoda H, Tanabe M, et al: Image quality in dual-source multiphasic dynamic computed tomography of the abdomen: evaluating the effects of a low tube voltage (70 kVp) in combination with contrast dose reduction. *Abdom Radiol (NY)* 45: 3755-3762, 2020.
  - 16. Matsukuma M, Furukawa M, Yamamoto S, et al: The kinetic analysis of breast cancer: An investigation of the optimal temporal resolution for dynamic contrast-enhanced MR imaging. *Clin Imaging* 61: 4-10, 2020.
  - 17. Kameda F, Tanabe M, Onoda H, et al: Quantification of pancreas fat on dual-energy computed tomography: comparison with six-point Dixon magnetic resonance imaging. *Abdom Radiol (NY)* 45: 2779-2785, 2020.
  - 18. Higashi M, Tanabe M, Onoda H, et al: Incidentally detected pancreatic adenocarcinomas on computed tomography obtained during the follow-up for other diseases. *Abdom Radiol (NY)* 45: 774-781, 2020.
  - 19. Higashi M, Tanabe M, Okada M, et al: Influence of fat deposition on T1 mapping of the pancreas: evaluation by dual-flip-angle MR imaging with and without fat suppression. *Radiol Med* 125: 1-6, 2020.
  - 20. Ariyoshi S, Tanabe M, Ito K: Evaluation of the renal parenchymal retention of iodinated contrast agent during follow-up computed tomography performed one day after undergoing contrast-enhanced computed tomography. *Eur J Radiol* 132: 109335, 2020.