

Curriculum Vitae (2019,9)

Yasuaki Arai, M.D., FSIR, FCIRSE

EDUCATION

1990 Doctor of Medical Science, Nagoya City University Graduate School of Medicine

1979 Medical Doctor, Jikei University School of Medicine

POSTGRADUATE TRAINING

1979 - 1983 Resident in Internal Medicine, The 2nd Tokyo National Hospital

PROFESSIONAL EXPERIENCE

2016-present Executive Advisor to the President, National Cancer Center

2015-2018 Chair, Interventional Radiology Center, National Cancer Center Hospital

2004-2018 Chair, Department of Diagnostic Radiology, National Cancer Center Hospital

2012-2016 Director, National Cancer Center Hospital

1997-2004 Chair, Department of Diagnostic & Interventional Radiology, Aichi Cancer Center

1984-1996 Staff, Department of Diagnostic & Interventional Radiology, Aichi Cancer Center

RESEARCH WORK

Development

2017 Tip-deflecting microcatheter

2011 Transjuglar Transhepatic Peritoneal Venous Shunt (TTPVS)

2001 Techniques of trans-jugular trans-hepatic peritoneo-venous shunt

1992 Interventional CT system (Angio-CT)

1982 Techniques of percutaneous catheter placement for hepatic arterial infusion chemotherapy

1982 Implantable port system

Leadership

2002 - 2019 Clinical trial group of interventional radiology (JIVROSG)

1986 - 2016 Japanese Society of Implantable Port Assisted Treatment

PROFESSIONAL SOCIETY MEMBERSHIP & SERVICE

Societies

Immediate Past President, Japanese Society of Interventional Radiology

Founder, Immediate Past Chair, Japan Interventional Radiology in Oncology Study Group (JIVROSG)

Certificated Board Interventional Radiologist, Japanese Society of Interventional Radiology

Certificated Board Diagnostic Radiologist, Japanese Radiological Society

Fellow, Society of Interventional Radiology (FSIR)

Distinguished Fellow, Cardio-vascular and Interventional Radiology Society of Europe (FCIRSE)

Executive Committee, Asia-Pacific Society of Cardio-Vascular and Interventional Radiology

Member, American Society of Clinical Oncology

Member of the Board of Councilors, Japanese Society of Medical Oncology

Member of the Board of Councilors, Japanese Society of Endoluminal Metallic Stents & Grafts

Member of the Board of Councilors, Japanese Society of Loco-regional Cancer Treatment

Emeritus member, Japanese Society of Implantable Port Assisted Treatment

Journals

Associate editor, Journal of Interventional Radiology

Associate Editor of Asia-Pacific Journal of Clinical Oncology

Emeritus Editor, Cardio-Vascular and Interventional Radiology

Governmental Service

Member of Pharmaceutical Affairs and Food Sanitation Council (PAFSC), MHLW

Chair of Committee on Medical Device and In-vitro Diagnostic, Pharmaceutical Affairs Council, PAFSC

Chair of Committee on Safety of Medical Device and Regenerative Device, Pharmaceutical Council, PAFSC

LATEST PUBLICATION – SELECTED, RELATED INTERVENENTIONAL RADIOLOGY

1

Aramaki T, Arai Y, Takeuchi Y, Sone M, Sato R, Bekku E, Moriguchi M. **A randomized, controlled trial of the efficacy of percutaneous transesophageal gastro-tubing (PTEG) as palliative care for patients with malignant bowel obstruction: the JIVROSG0805 trial.** Support Care Cancer. 2019 Sep 7. [Epub ahead of print]

2.

Sugawara S, Arai Y, Sone M, Nara S, Kishi Y, Esaki M, Shimada K, Katai H. **Retrospective Comparative Study of Absolute Ethanol with N-Butyl-2-Cyanoacrylate in Percutaneous Portal Vein Embolization.** J Vasc Interv Radiol. 2019 Aug;30(8):1215-1222.

3.

Sone M, Arai Y, Sugawara S, Kubo T, Itou C, Hasegawa T, Umakoshi N, Yamamoto N, Sunami K, Hiraoka N, Kubo T. **Feasibility of genomic profiling with next-generation sequencing using specimens obtained by image-guided percutaneous needle biopsy.** Ups J Med Sci. 2019 Apr;124(2):119-124.

4

Hidaka H, Izumi N, Aramaki T, Ikeda M, Inaba Y, Imanaka K, Okusaka T, Kanazawa S, Kaneko S, Kora S, Saito H, Furuse J, Matsui O, Yamashita T, Yokosuka O, Morita S, Arioka H, Kudo M, Arai Y. **Subgroup analysis of efficacy and safety of orantinib in combination with TACE in Japanese HCC patients in a randomized phase III trial (ORIENTAL).** Med Oncol. 2019 May 3;36(6):52.

5

Onishi Y, [Arai Y](#), Sone M, Ito C, Umakoshi N, Wada S. **A Novel Technique of Urine Drainage from Bilateral Kidneys with a Single Catheter.** J Vasc Interv Radiol. 2019 Mar;30(3):412-413. PMID: 30819484

6

Umakoshi N, [Arai Y](#), Sone M, Sugawara S. **Compact coil packing using a steerable microcatheter for a giant wide-necked pulmonary artery pseudoaneurysm.** Interact Cardiovasc Thorac Surg. 2018 Dec 15. [Epub ahead of print]

7

Murakami N, [Arai Y](#), Takagawa Y, Okuma K, Takahashi K, Inaba K, Igaki H, Nakayama Y, Itami J. **Inferior vena cava syndrome caused by retroperitoneal fibrosis after pelvic irradiation: A case report.**

Gynecol Oncol Rep. 2018 Dec 4;27:19-21.

8

Sugawara S, [Arai Y](#), Sone M, Ishiguchi T, Kitagawa A, Aramaki T, Sato R, Morishita H, Takeuchi Y, Inaba Y. **Phase II Trial of Transarterial Embolization Using an n-Butyl-2-Cyanoacrylate/Lipiodol Mixture (JIVROSG-0802).** Cardiovasc Intervent Radiol. 2019 Apr;42(4):534-541.

9

Hijioka S, Arai Y, Sone M, Yoshinaga S, Chan J, Sakamoto Y, Okusaka T, Saito Y. **Novel forward-viewing EUS-guided ileoureterostomy technique for recurrent pyelonephritis caused by ureteral stenosis.** VideoGIE. 2018 Jul 14;3(9):281-283.

10

Takeuchi Y, Arai Y, Sone M, Sugawara S, Aramaki T, Sato R, Kichikawa K, Tanaka T, Morishita H, Ito T, Yamakado K, Baba Y, Kobayashi T. **Evaluation of stent placement for vena cava syndrome: phase II trial and phase III randomized controlled trial.** Support Care Cancer. 2019 Mar;27(3):1081-1088.

11

Koizumi J, Hara T, Sekiguchi T, Ichikawa T, Tajima H, Takenoshita N, Tanikake M, Suyama Y, Kaji T, Kato K, Sone M, Arai Y, Anai H, Kichikawa K, Fujieda H, Nishibe T, Yamada N, Nakamura M, Nakano T, **Multicenter investigation of the incidence of inferior vena cava filter fracture.** Jpn J Radiol. 2018 Nov;36(11):661-668.

12

Inaba Y, Arai Y, Sone M, Aramaki T, Osuga K, Tanaka H, Kanemasa K. **Clinical trial for development of a steerable microcatheter.** Minim Invasive Ther Allied Technol. 2019 Feb;28(1):1-5.2

13

Tanigawa N, Arai Y, Yamakado K, Aramaki T, Inaba Y, Kanazawa S, Matsui O, Miyazaki M, Kodama Y, Anai H, Hamanaka A. **Phase I/II Study of Radiofrequency Ablation for Painful Bone Metastases: Japan Interventional Radiology in Oncology Study Group 0208.** Cardiovasc Intervent Radiol. 2018 Jul;41(7):1043-1048.3

14

Morita S, Arai Y, Sugawara S, Sone M, Sakamoto Y, Okusaka T, Yoshinaga S, Saito Y, Terai S. **Antireflux Metal Stent for Initial Treatment of Malignant Distal Biliary Obstruction.** Gastroenterol Res Pract. 2018 Jan 31;2018:3805173. eCollection 2018.

15

Kudo M, Ueshima K, Yokosuka O, Ogasawara S, Obi S, Izumi N, Aikata H, Nagano H, Hatano E, Sasaki Y, Hino K, Kumada T, Yamamoto K, Imai Y, Iwadou S, Ogawa C, Okusaka T, Kanai F, Akazawa K, Yoshimura

KI, Johnson P, [Arai Y](#); SILIUS study group. **Sorafenib plus low-dose cisplatin and fluorouracil hepatic arterial infusion chemotherapy versus sorafenib alone in patients with advanced hepatocellular carcinoma (SILIUS): a randomised, open label, phase 3 trial.** Lancet Gastroenterol Hepatol. 2018 Jun;3(6):424-432.

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Kudo M, Cheng AL, Park JW, Park JH, Liang PC, Hidaka H, Izumi N, Heo J, Lee YJ, Sheen IS, Chiu CF, Arioka H, Morita S, Arai Y. **Orantinib versus placebo combined with transcatheter arterial chemoembolisation in patients with unresectable hepatocellular carcinoma (ORIENTAL): a randomised, double-blind, placebo-controlled, multicentre, phase 3 study.** Lancet Gastroenterol Hepatol. 2018 Jan;3(1):37-46.

17

Inaba Y, [Arai Y](#), Sone M, Aramaki T, Osuga K, Tanaka H, Kanemasa K. **Experiments for the Development of a Steerable Microcatheter.** Cardiovasc Intervent Radiol. 2017 Dec;40(12):1921-1926.

18

Sugawara S, [Arai Y](#), Sone M, Katai H. **Frequency, Severity, and Risk Factors for Acute Pancreatitis After Percutaneous Transhepatic Biliary Stent Placement Across the Papilla of Vater.** Cardiovasc Intervent Radiol. 2017 Dec;40(12):1904-1910.

19

Ikeda M, Okusaka T, Sato Y, Furuse J, Mitsunaga S, Ueno H, Morizane C, Inaba Y, Kobayashi T, [Arai Y](#). **A Phase I/II trial of continuous hepatic intra-arterial infusion of 5-fluorouracil, mitoxantrone and cisplatin for advanced hepatocellular carcinoma.** Jpn J Clin Oncol. 2017 Jun 1;47(6):512-519

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Okuyama H, Ikeda M, Takahashi H, Ohno I, Hashimoto Y, Mitsunaga S, Sakamoto Y, Kondo S, Morizane C, Ueno H, Kobayashi T, [Arai Y](#), Okusaka T. **Transarterial (Chemo)Embolization for Liver Metastases in Patients with Neuroendocrine Tumors.** Oncology. 2017 ;92(6):353-359

21

Shibayama Y, Namikawa K, Sone M, Takahashi A, Tsutsumida A, Sugawara S, Arai Y, Aihara Y, Suzuki S, Nakayama J, Imafuku S, Yamazaki N. **Efficacy and toxicity of transarterial chemoembolization therapy using cisplatin and gelatin sponge in patients with liver metastases from uveal melanoma in an Asian population.** Int J Clin Oncol. 2017 Jun;22(3):577-584.

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Tokuda T, Arai Y, Sone M, Sugawara S, Morita S, Saito Y. **Coil Embolization for the Treatment of Esophageal Perforation after Endoscopic Submucosal Dissection.** J Vasc Interv Radiol. 2016 Sep;27(9):1461-3.

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Sone M, Arai Y, Sugawara S, Tomita K, Fujiwara K, Ishii H, Morita S. **Angio-CT-Assisted Balloon Dissection: Protection of the Adjacent Intestine during Cryoablation for Patients with Renal Cancer.** J Vasc Interv Radiol. 2016 Sep;27(9):1414-9.

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Miyazaki M, Arai Y, Myoui A, Gobara H, Sone M, Rosenthal DI, Tsushima Y, Kanazawa S, Ehara S, Endo K. **Phase I/II Multi-Institutional Study of Percutaneous Radiofrequency Ablation for Painful Osteoid Osteoma (JIVROSG-0704).** Cardiovasc Intervent Radiol. 2016 Oct;39(10):1464-70.

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Gobara H, Arai Y, Kobayashi T, Yamakado K, Inaba Y, Kodama Y, Yamagami T, Sone M, Watanabe H, Okumura Y, Shinya T, Kurihara H, Kanazawa S. **Percutaneous radiofrequency ablation for patients with malignant lung tumors: a phase II prospective multicenter study (JIVROSG-0702).** Jpn J Radiol. 2016 Aug;34(8):556-63.

26

Sofue K, Takeuchi Y, Tsurusaki M, Shibamoto K, Sakamoto N, Kitajima K, Sone M, Sugimura K, Arai Y. **Value of Percutaneous Radiologic Gastrostomy for Patients with Advanced Esophageal Cancer.** Ann Surg Oncol. 2016 Oct;23(11):3623-31.

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Osuga K, Nakajima Y, Sone M, Arai Y, Nambu Y, Hori S. **Transarterial embolization of hypervascular tumors using trisacryl gelatin microspheres (Embosphere): a prospective multicenter clinical trial in Japan.** Jpn J Radiol. 2016 May;34(5):366-75.

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Horikawa M, Miyayama S, Irie T, Kaji T, Arai Y. **Development of Conventional Transarterial Chemoembolization for Hepatocellular Carcinomas in Japan: Historical, Strategic, and Technical Review.** AJR Am J Roentgenol. 2015 Oct;205(4):764-73.

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de Baere T, Arai Y, Lencioni R, Geschwind JF, Rilling W, Salem R, Matsui O, Soulen MC. **Treatment of Liver Tumors with Lipiodol TACE: Technical Recommendations from Experts Opinion.** Cardiovasc Intervent Radiol. 2016 Mar;39(3):334-43.

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Hiraki T, Koizumi J, Arai Y, Sakurai Y, Kumada H, Nambu Y, Hori S. **Transcatheter arterial embolization of hypervascular tumors with HepaSphere: prospective multicenter open label clinical trial of microspheres in Japan.** Jpn J Radiol. 2015 Aug;33(8):479-86.

31

Sofue K, Arai Y, Takeuchi Y, Tsurusaki M, Sakamoto N, Sugimura K. **Ultrasonography-guided central venous port placement with subclavian vein access in pediatric oncology patients.** J Pediatr Surg. 2015 Oct;50(10):1707-10.

32

Inaba Y, Yamaura H, Sato Y, Kato M, Kawada H, Murata S, Hasegawa T, Arai Y. **Side-Hole Catheter Placement with Fixation and Embolization in Common Hepatic Artery for Hepatic Arterial Infusion Chemotherapy (Modified CHA-Coil Method) for Patients with Celiac Artery Stenosis or Occlusion.** Cardiovasc Intervent Radiol. 2015 Dec;38(6):1621-6.

33

Sone M, [Arai Y](#), Morita S, Tomimatsu H, Sugawara S, Ishii H, Takeuchi Y. **Percutaneous creation of an extraanatomic splenoportal shunt in a patient with bleeding ectopic varices.** J Vasc Interv Radiol. 2014 Aug;25(8):1301-3.

34

Morita S, [Arai Y](#), Sone M. **Two esophageal stents in the abdomen.** J Vasc Interv Radiol. 2014 Aug;25(8):1193.

35

Mimura H, [Arai Y](#), Yamakado K, Sone M, Takeuchi Y, Miki T, Gobara H, Sakuhara Y, Yamamoto T, Sato Y, Kanazawa S. **Phase I/II Study of Radiofrequency Ablation for Malignant Renal Tumors: Japan Interventional Radiology in Oncology Study Group 0701.** Cardiovasc Intervent Radiol. 2016 May;39(5):717-23.

36

[Arai Y](#), Aoyama T, Inaba Y, Okabe H, Ihaya T, Kichikawa K, Ohashi Y, Sakamoto J, Oba K, Saji S. **Phase II study on hepatic arterial infusion chemotherapy using percutaneous catheter placement techniques for liver metastases from colorectal cancer (JFMC28 study).** Asia Pac J Clin Oncol. 2015 Mar;11(1):41-8.

37

Okamoto D, Takeuchi Y, [Arai Y](#), Sone M, Shibamoto K, Sugawara S, Tomimatsu H, Morita S. **Bridging stent placement through the superior vena cava to the inferior vena cava in a patient with malignant superior vena cava syndrome and an iodinated contrast material allergy.** Jpn J Radiol. 2014 Aug;32(8):496-9.

38

Sofue K, Takeuchi Y, [Arai Y](#), Sugimura K. **Reply to letter re: anticoagulant therapy in oncologic patients undergoing venous stenting for superior vena cava syndrome and other interventional procedures.** Cardiovasc Intervent Radiol. 2014 Oct;37(5):1405-6.

39

Sofue K, Takeuchi Y, Shibamoto K, Sugimoto K, Sugimura K, Arai Y. **Infusion of 50% glucose solution to occlude an intrahepatic portosystemic venous shunt before percutaneous transhepatic portal embolization: report of a case.** Surg Today. 2014 Dec;44(12):2366-8.

40

Sofue K, Arai Y, Takeuchi Y, Sugimura K. **Flow confirmation study for central venous port in oncologic outpatient undergoing chemotherapy: evaluation of suspected system-related mechanical complications.** Eur J Radiol. 2013 Nov;82(11):e691-6.

41

Ikeda M, Okusaka T, Furuse J, Mitsunaga S, Ueno H, Yamaura H, Inaba Y, Takeuchi Y, Satake M, Arai Y. **A multi-institutional phase II trial of hepatic arterial infusion chemotherapy with cisplatin for advanced hepatocellular carcinoma with portal vein tumor thrombosis.** Cancer Chemother Pharmacol. 2013 Aug;72(2):463-70.

42

Aramaki T, Arai Y, Inaba Y, Sato Y, Saito H, Sone M, Takeuchi Y. **Phase II study of percutaneous transesophageal gastro tubing for patients with malignant gastrointestinal obstruction; JIVROSG-0205.** J Vasc Interv Radiol. 2013 Jul;24(7):1011-7.

43

Ikeda M, Mitsunaga S, Shimizu S, Ohno I, Takahashi H, Okuyama H, Kuwahara A, Kondo S, Morizane C, Ueno H, Satake M, Arai Y, Okusaka T. **Efficacy of sorafenib in patients with hepatocellular carcinoma refractory to transcatheter arterial chemoembolization.** J Gastroenterol. 2014 May;49(5):932-40.

44

Inaba Y, Kanai F, Aramaki T, Yamamoto T, Tanaka T, Yamakado K, Kaneko S, Kudo M, Imanaka K, Kora S, Nishida N, Kawai N, Seki H, Matsui O, Arioka H, Arai Y. **A randomised phase II study of TSU-68 in patients with hepatocellular carcinoma treated by transarterial chemoembolisation.** Eur J Cancer. 2013 Sep;49(13):2832-40.

45

Ikeda M, Arai Y, Park SJ, Takeuchi Y, Anai H, Kim JK, Inaba Y, Aramaki T, Kwon SH, Yamamoto S, Okusaka T; Japan Interventional Radiology in Oncology Study Group (JIVROSG).; Korea Interventional Radiology in Oncology Study Group (KIVROSG).. **Prospective study of transcatheter arterial chemoembolization for unresectable hepatocellular carcinoma: an Asian cooperative study between Japan and Korea.** J Vasc Interv Radiol. 2013 Apr;24(4):490-500.

46

Hashimoto R, Sofue K, Takeuchi Y, Shibamoto K, Arai Y. **Successful balloon-occluded retrograde transvenous obliteration for bleeding duodenal varices using cyanoacrylate.** World J Gastroenterol. 2013 Feb 14;19(6):951-4.

47

Sato Y, Watanabe H, Sone M, Onaya H, Sakamoto N, Osuga K, Takahashi M, Arai Y; Japan Interventional Radiology in Oncology Study Group-JIVROSG.. **Tumor response evaluation criteria for HCC (hepatocellular carcinoma) treated using TACE (transcatheter arterial chemoembolization): RECIST (response evaluation criteria in solid tumors) version 1.1 and mRECIST (modified RECIST): JIVROSG-0602.** Ups J Med Sci. 2013 Mar;118(1):16-22.

48

Sato Y, Inaba Y, Yamaura H, Takaki H, Arai Y. **Malignant inferior vena cava syndrome and congestive hepatic failure treated by venous stent placement.** J Vasc Interv Radiol. 2012 Oct;23(10):1377-80.

49

Osuga K, Arai Y, Anai H, Takeuchi Y, Aramaki T, Sugihara E, Yamamoto T, Inaba Y, Ganaha F, Seki H, Sadaoka S, Sato M, Kobayashi T, Kodama Y, Inoh S, Yamakado K. **Phase I/II multicenter study of transarterial chemoembolization with a cisplatin fine powder and porous gelatin particles for unresectable hepatocellular carcinoma: Japan Interventional Radiology in Oncology Study Group Study 0401.** J Vasc Interv Radiol. 2012 Oct;23(10):1278-85.

50

Arai Y, Ohtsu A, Sato Y, Aramaki T, Kato K, Hamada M, Muro K, Yamada Y, Inaba Y, Shimada Y, Boku N, Takeuchi Y, Morita S, Satake M. **Phase I/II study of radiologic hepatic arterial infusion of fluorouracil**

plus systemic irinotecan for unresectable hepatic metastases from colorectal cancer: Japan Clinical Oncology Group Trial 0208-DI. J Vasc Interv Radiol. 2012 Oct;23(10):1261-7.

51

Arai Y. **Clinical trials of interventional oncology.** Int J Clin Oncol. 2012 Aug;17(4):301-5.

52

Sofue K, Takeuchi Y, Arai Y, Sugimura K. **Life-threatening cerebral edema caused by acute occlusion of a superior vena cava stent.** Cardiovasc Intervent Radiol. 2013 Feb;36(1):272-5.

53

Sone M, Arai Y, Kiuchi T, Ishikawa H, Aoki N, Inaba Y, Yoshioka T, Aramaki T, Kobayashi T, Matsuoka T, Anai H, Tanigawa N, Osuga K, Takeuchi Y, Okusaka T, Kanazawa S, Matsui O, Endo K; Japan Interventional Radiology in Oncology Study Group. [**Shared web-based data center for multi-institutional clinical trials: evaluation of UMIN-INDICE (university hospital medical information network-internet data and information center for medical research)in clinical trials of JIVROSG (Japan interventional radiology in oncology study group)**]. Gan To Kagaku Ryoho. 2012 Apr;39(4):619-23.

54

Sofue K, Arai Y, Takeuchi Y, Fujiwara H, Tokue H, Sugimura K. **Safety and efficacy of primary metallic biliary stent placement with tract embolization in patients with massive ascites: a retrospective analysis of 16 patients.** J Vasc Interv Radiol. 2012 Apr;23(4):521-7.