

Stanford



Rajesh Shah

Clinical Associate Professor, Radiology

 Curriculum Vitae available Online

CLINICAL OFFICES

- **Department of Radiology**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Susan Hanlock-Chapman

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Bio

BIO

I am an interventional radiologist with a particular interest in interventional oncology. I perform a wide range of procedures including ablations of the lung, liver, kidney, bone, and other areas in the body, chemoembolization, embolization, and radioembolization of tumors, biopsies, drainages, and interventions on both the venous and arterial sides. I was the first physician to perform SIR-spheres radioembolization for metastatic tumors to the liver within the VA hospital system, and have been recognized for my teaching of trainees. I am currently the Director of Interventional Radiology and Associate Chief of Radiology at the VA Palo Alto Health Care System. My research focuses on HCC and Lung cancer, including the application of Machine Learning/AI and Radiogenomics to lung cancer identification. I also work on Quality in Medicine as the Chair of the Quality and Performance Improvement Division for the Society of Interventional Radiology where we work to define quality measures, gather data via a national IR registry, and develop practice improvement tools.

CLINICAL FOCUS

- Interventional radiology, interventional oncology, ablation, embolization, chemoembolization, biopsy, percutaneous interventions
- Interventional Radiology and Diagnostic Radiology

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Radiology

ADMINISTRATIVE APPOINTMENTS

- Director of Interventional Radiology and Associate Chief of Radiology, VA Palo Alto Health Care System (VAPAHCS), (2017- present)
- Chief of Interventional Radiology, VA Palo Alto Health Care System (VAPAHCS), (2011-2017)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Co-Chair Standardized Reporting Sub-Committee, Society of Interventional Radiology (2016 - present)

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Pain Management Fellowship (2010) CA
- Internship: California Pacific Medical Center Dept of Medicine (2005) CA

- Board Certification: Interventional Radiology and Diagnostic Radiology, American Board of Radiology (2017)
- Medical Education: Pritzker School of Medicine University of Chicago Registrar (2004) IL
- Residency: University of Illinois at Chicago (2009) IL

Research & Scholarship

CLINICAL TRIALS

- [18F]FMISO PET/CT After Transcatheter Arterial Embolization in Imaging Tumors in Patients With Liver Cancer, Not Recruiting
- HepaSphere/QuadrSphere Microspheres for Delivery of Doxorubicin for the Treatment of Hepatocellular Cancer, Not Recruiting
- Prostate Artery Embolization With Embosphere Microspheres Compared to TURP for Benign Prostatic Hyperplasia, Not Recruiting

Publications

PUBLICATIONS

- **Interreader Variability in Semantic Annotation of Microvascular Invasion in Hepatocellular Carcinoma on Contrast-enhanced Triphasic CT Images.** *Radiology. Imaging cancer*
Bakr, S., Gevaert, O., Patel, B., Kesselman, A., Shah, R., Napel, S., Kothary, N.
2020; 2 (3): e190062
- **The biomechanical impact of hip movement on iliofemoral venous anatomy and stenting for deep venous thrombosis.** *Journal of vascular surgery. Venous and lymphatic disorders*
Cheng, C. P., Dua, A., Suh, G., Shah, R. P., Black, S. A.
2020
- **Iliofemoral Vein Compression Is Caused by the Pubic Bone, Not the Inguinal Ligament**
Cheng, C., Suh, G., Shah, R., Black, S., Chinubhai, A.
ELSEVIER SCIENCE INC.2019: B558
- **Lower Extremity Venous Stent Placement: A Large Retrospective Single-Center Analysis.** *Journal of vascular and interventional radiology : JVIR*
Mabud, T. S., Cohn, D. M., Arendt, V. A., Jeon, G., An, X., Fu, J., Souffrant, A. D., Sailer, A. M., Shah, R., Wang, D., Sze, D. Y., Kuo, W. T., Rubin, et al
2019
- **Custom 3-Dimensional Printed Ultrasound-Compatible Vascular Access Models: Training Medical Students for Vascular Access.** *Journal of vascular and interventional radiology : JVIR*
Sheu, A. Y., Laidlaw, G. L., Fell, J. C., Triana, B. P., Goettl, C. S., Shah, R. P.
2019; 30 (6): 922–27
- **A Predictive Model for Postembolization Syndrome after Transarterial Hepatic Chemoembolization of Hepatocellular Carcinoma** *RADIOLOGY*
Khalaf, M. H., Sundaram, V., Mohammed, M., Shah, R., Khosla, A., Jackson, K., Desai, M., Kothary, N.
2019; 290 (1): 254–61
- **A Predictive Model for Postembolization Syndrome after Transarterial Hepatic Chemoembolization of Hepatocellular Carcinoma.** *Radiology*
Khalaf, M. H., Sundaram, V., AbdelRazek Mohammed, M. A., Shah, R., Khosla, A., Jackson, K., Desai, M., Kothary, N.
2018: 180257
- **Determining the Optimal Number of Core Needle Biopsy Passes for Molecular Diagnostics** *CARDIOVASCULAR AND INTERVENTIONAL RADIOLOGY*
Hoang, N. S., Ge, B. H., Pan, L. Y., Ozawa, M. G., Kong, C. S., Louie, J. D., Shah, R. P.
2018; 41 (3): 489–95
- **The Role of Cone-Beam CT in Transcatheter Arterial Chemoembolization for Hepatocellular Carcinoma: A Systematic Review and Meta-analysis.** *Journal of vascular and interventional radiology*
Pung, L., Ahmad, M., Mueller, K., Rosenberg, J., Stave, C., Hwang, G. L., Shah, R., Kothary, N.
2017; 28 (3): 334-341
- **Noninvasive radiomics signature based on quantitative analysis of computed tomography images as a surrogate for microvascular invasion in hepatocellular carcinoma: a pilot study.** *Journal of medical imaging (Bellingham, Wash.)*

- Bakr, S., Echegaray, S., Shah, R., Kamaya, A., Louie, J., Napel, S., Kothary, N., Gevaert, O.
2017; 4 (4): 041303
- **Standardized Reporting in IR: A Prospective Multi-Institutional Pilot Study** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
McWilliams, J. P., Shah, R. P., Quirk, M., White, S. B., Dybul, S. L., Ahrar, J., Steele, J. R., Kwan, S. W., Handel, J., Winokur, R. S., Gilliland, C. A., Durack, J. C.
2016; 27 (12): 1779-1785
 - **Complications During Transjugular Intrahepatic Portosystemic Shunt Creation.** *Techniques in vascular and interventional radiology*
Shah, R. P., Sze, D. Y.
2016; 19 (1): 61-73
 - **Endovascular Stent Placement for May-Thurner Syndrome in the Absence of Acute Deep Vein Thrombosis.** *Journal of vascular and interventional radiology*
Ahmed, O., Ng, J., Patel, M., Ward, T. J., Wang, D. S., Shah, R., Hofmann, L. V.
2016; 27 (2): 167-173
 - **Severe Chest Wall Toxicity From Cryoablation in the Setting of Prior Stereotactic Ablative Radiotherapy** *CUREUS*
Chaudhuri, A. A., Binkley, M. S., Aggarwal, S., Qian, Y., Carter, J. N., Shah, R., Loo, B. W.
2016; 8 (2)
 - **Severe Chest Wall Toxicity From Cryoablation in the Setting of Prior Stereotactic Ablative Radiotherapy.** *Cureus*
Chaudhuri, A. A., Binkley, M. S., Aggarwal, S., Qian, Y., Carter, J. N., Shah, R., Loo, B. W.
2016; 8 (2)
 - **Management of High Hepatopulmonary Shunting in Patients Undergoing Hepatic Radioembolization.** *Journal of vascular and interventional radiology*
Ward, T. J., Tamrazi, A., Lam, M. G., Louie, J. D., Kao, P. N., Shah, R. P., Kadoch, M. A., Sze, D. Y.
2015; 26 (12): 1751-1760
 - **Core samples for radiomics features that are insensitive to tumor segmentation: method and pilot study using CT images of hepatocellular carcinoma.** *Journal of medical imaging (Bellingham, Wash.)*
Echegaray, S., Gevaert, O., Shah, R., Kamaya, A., Louie, J., Kothary, N., Napel, S.
2015; 2 (4): 041011-?
 - **Quantitative Emphysema Score as a Predictor of Morbidity in Transthoracic Needle Aspiration Biopsy**
Gonzales, N., Wang, D., Holty, J., Kuschner, W., Raffy, P., Laeseke, P., Shah, R., Sung, A., Van Wert, R.
AMER COLL CHEST PHYSICIANS.2015
 - **Corrigendum to "Asymptomatic Liver Abscesses Mimicking Metastases in Patients after Whipple Surgery: Infectious Complications following Percutaneous Biopsy-A Report of Two Cases".** *Case reports in hepatology*
Zhang, K. K., Maybody, M., Shah, R. P., Vakiani, E., Getrajdman, G. I., Brody, L. A., Solomon, S. B.
2015; 2015: 783506
 - **Prophylactic Topically Applied Ice to Prevent Cutaneous Complications of Nontarget Chemoembolization and Radioembolization** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Wang, D. S., Louie, J. D., Kothary, N., Shah, R. P., Sze, D. Y.
2013; 24 (4): 596-600
 - **Superselective Internal Radiation With Yttrium-90 Microspheres in the Management of a Chemorefractory Testicular Liver Metastasis** *CARDIOVASCULAR AND INTERVENTIONAL RADIOLOGY*
Sideras, P. A., Sofocleous, C. T., Brody, L. A., Siegelbaum, R. H., Shah, R. P., Taskar, N.
2012; 35 (2): 426-429
 - **Asymptomatic Liver Abscesses Mimicking Metastases in Patients after Whipple Surgery: Infectious Complications following Percutaneous Biopsy-A Report of Two Cases.** *Case reports in hepatology*
Zhang, K. K., Maybody, M., Shah, R. P., Vakiani, E., Getrajdman, G. I., Brody, L. A., Solomon, S. B.
2012; 2012: 817314-?
 - **Cystic Artery Localization with a Three-dimensional Angiography Vessel Tracking System Compared with Conventional Two-dimensional Angiography** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Wang, X., Shah, R. P., Maybody, M., Brown, K. T., Getrajdman, G. I., Stevenson, C., Petre, E. N., Solomon, S. B.
2011; 22 (10): 1414-1419

- **Arterially Directed Therapies for Hepatocellular Carcinoma** *AMERICAN JOURNAL OF ROENTGENOLOGY*
Shah, R. P., Brown, K. T., Sofocleous, C. T.
2011; 197 (4): W590-W602
- **Hepatic arterial embolization complicated by acute cholecystitis.** *Seminars in interventional radiology*
Shah, R. P., Brown, K. T.
2011; 28 (2): 252-257
- **Synchronous moyamoya syndrome and ruptured cerebral aneurysm in Alagille syndrome** *JOURNAL OF CLINICAL NEUROSCIENCE*
Gaba, R. C., Shah, R. P., Muskovitz, A. A., Guzman, G., Michals, E. A.
2008; 15 (12): 1395-1398
- **A case of pancreatic islet cell transplantation in a patient with situs ambiguous: anatomical and radiological considerations.** *Seminars in interventional radiology*
Shah, R. P., Bui, J. T., West, D. L., Oberholzer, J., Hatipoglu, B. A., Martellotto, J. N., Owens, C. A.
2007; 24 (1): 43-46