Radiology-2013

OMICS Group Conferences
Accelerating Scientific Discovery

International Conference on
Radiology and Imaging

August 14-16, 2013 Chicago, USA

Hepatoma-feeding-arteriogram created by CT during aortography using IVR-64-multi-detector row CT for catheterization in transcatheter arterial chemoembolization for hepatocellular carcinoma

Morio Sato

Wakayama Medical University, Japan

Abstract

CT during aortography (CTAo) using IVR-64 detector row CT (IVR-64MDCT) enables rapid simultaneous depiction of both hepatic and extrahepatic feeding arteries in hepatocellular carcinoma (HCC), and can be achieved using a reasonable volume of contrast medium (CM). Scan time is approximately 6 seconds from the diaphragm to the kidney using CTAo with 64MDCT, for slice thickness and slice interval of 0.5 mm. The hepatoma-feeding-arteriogram appears in the angiographic monitor after CTAo, and can then be used to guide catheterization. We introduce the process for creating a hepatoma-feeding-arteriogram, synthesized from the following three volume-rendered (VR) images: background-bone, aorta-to-hepatic-branch-artery, and hepatoma-to-feeding-artery. Uniquely, the hepatoma-feeding-arteriogram enables investigation of the feeding artery from the tumor side, rather than from the aorta side, and appears superior to selective arteriography in terms of detecting small HCC and accompanying fine feeding arteries. Identification of these arteries by CT angiography with intravenous contrast medium injection is difficult because of the similarity in CT values between the feeding artery and the surrounding liver, thereby preventing the creation of a hepatoma-feeding-arteriogram. CTAo accelerates the process of deciding catheter treatment strategy at the point of investigating the feeding artery because the hepatoma-feeding-arteriogram enables instant identification of the feeding artery and its connection to the hepatic branch artery. CTAo with IVR-64MDCT can potentially contribute to remarkable advances in IVR, especially TACE for HCC.

Biography

Morio Sato is a professor and chairman of department of Radiology in Wakayama Medical University. Education and post graduation in Medical School, Osaka City University from 1970 to 1976. And Resident in Department of Radiology in School of Medicine, Osaka City University from 1976-1978. He was completed post graduation Osaka City University from 1978 to 1982.At present he is a Professor and Chairman of Wakayama Medical University, Japan.