Pulmonary Lipiodol Embolism after Transcatheter Arterial Chemoembolization for Hepatocellular Carcinoma: A Case Report and Literature Review

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Abstract

Acute pulmonary lipiodol embolism is a rare but possibly fatal complication of transcatheter arterial chemoembolization (TACE). The authors report a 63-years-old woman with unresectable large (7.4 x 7.9 cm) hepatocellular carcinoma (HCC) who had been diagnosed pulmonary lipiodol embolism after the first TACE. Intraoperative angiography did not show the communication between pulmonary circulation and tumor feeding artery. After lipiodol injection, she developed oxyhemoglobin desaturation immediately and chest computed tomography (CT) angiography showed lipiodol embolism at basal segments of both lower lobes. She also developed fever after TACE without any evidence of infection. Oxyhemoglobin desaturation had improved to baseline spontaneously within 7 days. Fever persisted for 16 days. Two weeks after TACE, follow-up CT of liver revealed the absence of almost lipiodol granule in lungs. The patient did not receive TACE again because of pulmonary metastasis. In this article we reviewed the cases of pulmonary lipiodol embolism that had been reported in the literature including clinical risk factors, possible mechanisms and the pathophysiology of this complication.

Keywords: Hepatocellular carcinoma, Chemoembolization, Pulmonary lipiodol embolism

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