

中文題目:肝惡性腫瘤經皮射頻消融術後之肋膜積液表現

英文題目: Pleural effusion after percutaneous radiofrequency ablation for hepatic malignancies

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Background and aims: Radiofrequency ablation (RFA) can play an important role in the treatment of primary or metastatic liver tumors. Currently, percutaneous RFA is generally regarded as a safe, effective, and minimally invasive procedure. This study aimed to evaluate the presence and course of pleural effusion after monopolar RFA.

Materials and methods: From October 2008 to July 2013, a total of 54 patients (28 male and 26 female, mean age 65.2) treated with monopolar RFA were included in our study. 47 patients were diagnosed with hepatocellular carcinoma, 4 patients with hepatic metastasis, and 3 patients had other diagnoses. There were a total of 115 sessions of treatment and 199 liver tumors to be treated (1.73 ± 1.02 tumors treated per session). The tumor size ranged from 0.8 cm to 5.0 cm (mean 2.31 cm, standard deviation 1.04 cm). Thereafter, a follow-up ultrasound was performed within 24 hours subsequent to ablation to evaluate the presence of pleural effusion. The degree of pleural effusion was assessed by chest X-ray.

Results: Fifteen (13.0%) treatment sessions in 14 patients showed right-sided pleural effusion after ablations. One patient had a large amount of effusion, while other patients manifested a minimal to small amount of effusion. There were 5 patients that experienced delayed resolution of pleural effusion; one patient (0.87%) had a minimal amount of pleural effusion even after one month. Overall, there was no pneumothorax, or periprocedural mortality. Age, gender, tumor numbers, tumor sizes, and complete ablation of target tumors were similar among groups presenting with or without pleural effusion. Tumor locations associated with S78 segments abutting the diaphragm or right lobe of the liver were not associated with development of pleural effusion. Only the duration of ablation time had a marginal trend toward significance ($p = 0.051$).

Conclusion: The transient appearance of right-sided pleural effusion after percutaneous RFA for hepatic malignancies was not infrequent. However, refractory pleural effusion was rare.