Purpose: Thermal ablative methods are commonly used for the treatment of primary or metastatic liver tumors. At our institution, both microwave ablation (MWA) and radiofrequency ablation (RFA) are performed for hepatic tumor treatment. Although they provide similar goals, they differ in technical details. As of current, there is limited literature offering direct comparison of ablation zone size, complications, and incidence of residual or recurrent tumor. In addition, there are limited publications highlighting differences in treatment and post-thermal ablation imaging findings for primary versus metastatic disease to the liver. Understanding the differences in these methods and accurate interpretation of post-ablation imaging appearances will help guide future treatment and management of patients with primary or metastatic liver tumors. This will also be of help in listing patients for transplant in the case of liver ablations. The purpose of this exhibit is to illustrate the imaging appearances of liver tumors over 3-6 months following MWA or RFA, including similarities and differences of primary versus metastatic disease, and compare the effectiveness of these techniques at our institution. This study is IRB approved by our institution. Content organization: The MWA and RFA techniques will be briefly described, followed by pre and post-ablation images of primary and metastatic disease to the liver. Comparison of imaging findings between the two modalities will be illustrated immediately post-ablation, 1 month post-ablation and 3-6 months post-ablation. The differences in post-ablation findings and complications between the two modalities will be compared. Major teaching points: 1. Microwave ablation and radiofrequency ablation are both effective methods of treatment for patients with primary as well as metastatic liver tumors. 2. Understanding the differences in ablation techniques and post-ablation imaging studies is important as it ultimately impacts clinical management. 3. Awareness of the differences in complications between the two modalities.