



Microwave Failure

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LEARNING OBJECTIVES

- Identify complications associated with microwave ablation (MWA)
- Discuss acute liver failure (ALF) and its diagnosis

CASE PRESENTATION

60 y/o F with hepatitis C cirrhosis and known hepatocellular carcinoma is found unresponsive 2 days following microwave ablation of her HCC lesion

PHYSICAL EXAM

VS: P 106, T 98.2, BP 114/86 on 0.04 mcg/kg/min of norepi, intubated RR 19 requiring 70% FiO2
 Gen: unresponsive on no sedation, ill appearing
 Abd: soft, non distended, no masses or organomegaly
 CV: tachycardic, regular rhythm
 Resp: intubated, equal chest rise bilaterally

EVALUATION

123	90	46	87	11.9	11.2
4.7	20	3.31		23.5	118
				34.4	1489

Lactate 5.9

INR 8.7

COURSE/RESULTS



1.8 cm lesion in segment IVa



14 mm lesion in segment V

- A full infectious work-up was negative
- Comprehensive drug screen including Tylenol and aspirin was negative
- Liver duplex US demonstrated no thrombosis
- In addition to acute liver failure patient had progressively worsening renal function
- 5 days after presentation patient passed away

DISCUSSION

Acute Liver Failure

- Acute liver failure (ALF) can be diagnosed when INR >1.5x the uln, transaminases are >3x uln, encephalopathy is present
- Etiologies for ALF include: acetaminophen overdose, viral hepatitis, drug-induced liver injury, pregnancy-induced liver injury, autoimmune hepatitis, infection, vascular
- Microwave ablation can be an independent risk factor for development of ALF

Microwave Ablation

- MWA is considered a minimally invasive nonsurgical option for patients with HCC
- Major complications include bleeding, vascular thromboses, abscess formation, biliary tract damage

CONCLUSION

Microwave ablation is not without risks and rarely can cause acute liver failure without other acute findings.

REFERENCES

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