

HEMOADSORPTION THERAPY IN A PATIENT WITH LIVER ABSCESS AFTER TRAUMA RELATED HEMATOMA – CASE REPORT

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Background: Trauma related liver damage is one of the most fatal traumatic injuries. Trauma (blunt or penetrating) may cause bacterial abscess in both adults and children. While penetrations cause direct bacterial contamination, abscess after blunt traumas are more likely to occur due to hematoma, necrosis and bile leakage. In this case, we aim to share efficacy of hemoadsorption therapy in a patient with sepsis due to liver abscess developed after blunt trauma related hematoma.

Case: A sixty-one-year-old male with the history of hypertension and pulmonary thromboembolism admitted to emergency room with fever, nausea-vomiting, abdominal distension, pain and anorexia. He had history of same-level fall thirteen days before the admission. In physical examination, he had rebound tenderness in right hypochondriac region. In abdominal computed tomography, a subcapsular hypodense collection (25x11x6.5 cm) with air densities located in subdiaphragmatic to subhepatic region was detected (Figure 1). A percutaneous catheter was inserted by interventional radiologists to drain hematoma. In follow-up, the patient was admitted to ICU with tachycardia, tachypnea and anuria. He had metabolic acidosis with pH of 7.18 and -14.4 mmol/L of base excess. Continuous renal replacement therapy was initiated due to resistant acidosis and acute renal failure despite adequate hydration and vasopressors. In laboratory; procalcitonin, CRP and WBC levels were >100 mg/dL, 339 mg/L and 22,700/μL respectively. Imipenem, vancomycin and metronidazole antibiotherapy were started. SOFA score was 12. As integrated with CRRT, hemoadsorption therapy with HA330 filter (Jafron Biomedical Co., Ltd., China) was used four hours per day for five consecutive days. On the fifth day; procalcitonin, CRP and WBC levels were 24 mg/dL, 107 mg/L and 9300/μL respectively (Table 1). In follow-up, vasopressors were ceased. Abdominal computed tomography showed that abscess had been drained. The drainage catheter was removed. The patient was extubated two days after the last hemoadsorption therapy.

Conclusion: Complications of liver trauma should be managed with multidisciplinary approach. Treatment strategies should be tailored to clinical state, grade of anatomical injury and complications. Source control and effective antibiotherapy is crucial in management of intraabdominal infections. In our case, late admission after trauma was resulted with abscess formation from hematoma. He was clinically improved as well as laboratory tests with hemoadsorption therapy. Hemoadsorption therapy is a supportive treatment to keep in mind in abdominal sepsis cases together with standard care.

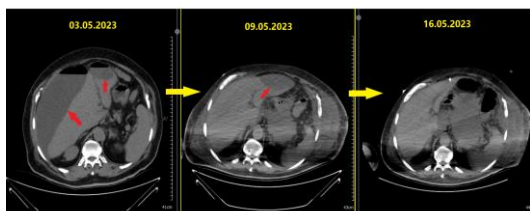


Figure 1: Subcapsular hypodense collection (25x11x6.5 cm) with air densities located in subdiaphragmatic to subhepatic region

	HEMOADSORPTION				
	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
CRP (mg/L)	349	339	273	158	107
Procalcitonin (μg/L)	>100	61	33,7	24	15
WBC (x10 ⁹ /μL)	26,6	18,2	15	9	11
Lactate (mmol/L)	3.1	2.3	2	2.1	1.8
Norepinephrine (mcg/kg/min)	0,4	0,25	0,1	0,08	0,15
Epinephrine (mcg/kg/min)	0,05	0,05	(-)	(-)	(-)
SOFA score	11	12	10	8	7

Table 1. SOFA score, acute phase reactants and vazopressor needs before, during and after HA therapy



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