

C A S E R E P O R T

Subcapsular liver hematoma after fibrinolytic therapy for acute myocardial infarction: a rare case report

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Summary. Hemorrhagic complications of thrombolytic therapy are rare but also serious and sometimes life-threatening. Liver hematoma is a very uncommon complication following thrombolytic therapy. We present a rare case of sub-capsular liver hematoma following streptokinase therapy of acute myocardial infarction as a challenging condition. This case report highlights that emergency physicians and cardiologists should be familiar with the significant and uncommon complications of thrombolytic agents, particularly streptokinase which is used generally in under- developed countries. (www.actabiomedica.it)

Key words: thrombolytic therapy, hematoma, liver, myocardial infarction

Background

Thrombolytic therapy with streptokinase is still used in the setting of acute myocardial infarction in developing countries, and has significantly diminished morbidity and mortality rates of acute MI (1, 2).

Hemorrhagic complications of thrombolytic therapy are rare but also serious and sometimes life-threatening. These include GI bleeding, hematuria and rarely intracranial and pulmonary hemorrhage (2, 3).

Case presentation

A 76 year-old man was referred to our hospital after receiving streptokinase, 5 hours before, due to extensive ST-elevation myocardial infarction. His past medical history was unremarkable for any comorbidity. He was smoker (50 packs /year) and had history of cataract surgery 3 years ago.

At the time of his admission in our hospital, he had no obvious chest pain or dyspnea. Initial physical examination showed a blood pressure of 145/85, heart rate of 78/min, respiratory rate of 16/min, oral temperature of 37.3°C and oxygen saturation 95% while he was breathing ambient air.

Heart and lung examinations were not remarkable. ST-elevation in ECG was resolved. Transthoracic echocardiography demonstrated ejection fraction of 30%, mild mitral and tricuspid regurgitations. The patient was planned to undergo initial medical management and elective PCI. Four hours after his admission, the patient started to complain of abdominal pain in right-upper region. He had nausea but no vomiting. The abdomen was soft in physical examination.

The initial laboratory tests before receiving fibrinolytic agent revealed: Blood sugar: 98 mg/dL, Urea: 38 mg/dL, Creatinine: 0.9 mg/dL, Sodium: 140 meq/L, Potassium: 3.6 meq/L, Hemoglobin: 13 gr/dl, Hematocrit: 39.3%, White blood cell count: 6100/

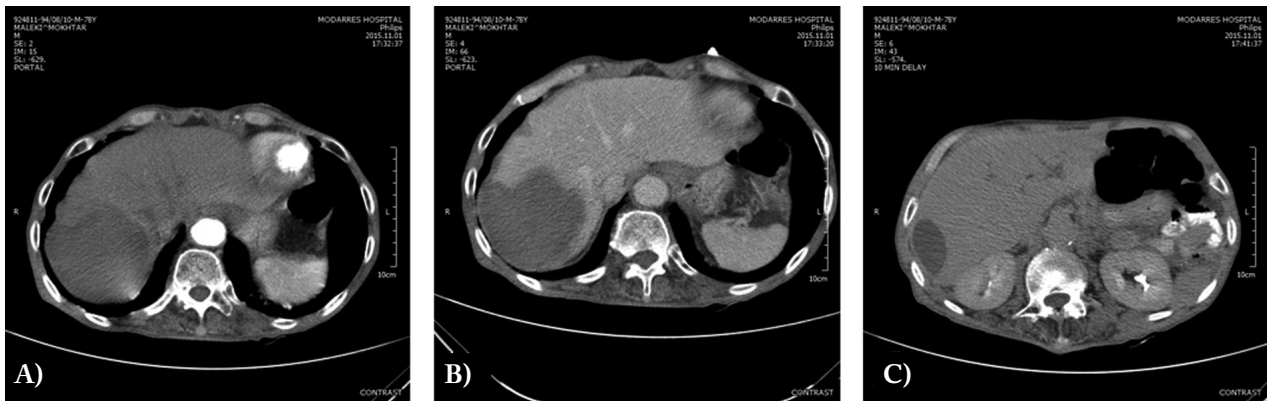


Figure 1. Sub capsular liver hematoma which was showed in A) initial phase, B) portal phase and C) secretory phase

micro lit, Platelet count: 365000/mL, Prothrombin time(PT): 12.6s, Partial thromboplastin time (PTT): 35s, Aspartate aminotransferase (AST): 46U/L, Alanine transaminase (ALT): 48 U/L and Alkaline phosphatase (ALP): 200U/L.

Due to consultation with GI service, abdominopelvic computed tomographic scan with oral and IV contrast was done for him. A large subcapsular collection measuring about 82 mm*82 mm*100 mm is seen in segments VII and VIII of right hepatic lobe. He had no history of recent local trauma to abdomen.

His hemodynamic state was stable. Due to Hemoglobin level of 7.9, He had received 2 units of erythrocyte suspension.

After consultation with general surgery and GI services, he was managed conservatively and discharged after 7 days of admission with ASA 81 mg daily, Clopidogrel 75 mg daily, Atorvastatin 40 mg daily and Carvedilol 6.25 mg/two times per day.

In follow up visits, he was in good condition and abdominopelvic ultrasonography 30 days later showed no remarkable liver hematoma. The patient was scheduled for coronary angiography which showed significant stenosis of left descending artery (LAD) at proximal portion; so, angioplasty of LAD with one drug eluting stent was performed for him. He was in stable condition and return to his usual life and exercise without any significant complaint.

Conclusion

Liver hematoma is a very uncommon complication following thrombolytic therapy (4, 5). However, to our knowledge, there are very rare reports about subcapsular hematoma of liver as a consequence of streptokinase therapy (6, 7). In the setting of recent myocardial infarction, management of subcapsular liver hematoma is challenging. Hypotension due to severe hematoma may be hazardous in the setting of myocardial infarction. Our patient managed conservatively due to stable hemodynamic condition.

This case report highlights that emergency physicians and cardiologists should be familiar with the significant and uncommon complications of thrombolytic agents, particularly streptokinase which is used generally in under- developed countries.

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