

Life-threatening Traumatic Rupture of an Intrahepatic Portal Vein

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Reports of life-threatening hemorrhage due to portal vein rupture are extremely rare. We report a case of massive bleeding due to intrahepatic portal vein rupture. A 17-year-old man presented to the emergency department (ED) via another hospital after a motorcycle accident. Cardiopulmonary resuscitation (CPR) was performed 20 minutes before arrival to the ED. CPR was continued after arrival but the patient died without return of spontaneous circulation (ROSC). Abdominal computed tomography (CT) performed at a previous hospital showed massive extravasation of contrast from the intrahepatic portal vein.

(Trauma Image Proced 2017(1):13-14)

Key Words: Portal Vein; Injuries; Hemorrhage; Liver

CASE

A 17-year-old man presented to the emergency department (ED) via another hospital after a motorcycle

accident. Cardiopulmonary resuscitation (CPR) was performed 20 minutes before arrival to the ED. CPR was continued after arrival but the patient died without return of spontaneous circulation (ROSC). Laboratory



Fig. Abdominal CT demonstrates massive extravasation of contrast from the intrahepatic right portal vein on axial (A) and coronal (B) views. Liver and spleen are not enhanced.

Received: March 4, 2017 Revised: April 5, 2017 Accepted: April 12, 2017

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examination revealed a white blood count (WBC) 3.51×10^3 / μ L, hemoglobin (Hb) 1.6 g/dL, platelet 16×10^3 / μ L, lactic acid 15.0mmol/L, and base excess -25.8. Abdominal computed tomography (CT) performed at a previous hospital showed massive extravasation of contrast from the intrahepatic right portal vein (Fig.).

DISCUSSION

Traumatic injuries to the portal vein are rarely reported. Reports of life-threatening hemorrhage due to intrahepatic portal vein rupture are extremely rare. Severe bleeding from the portal vein is treated surgically, such as via packing or ligation. Henne-Bruns et al. (1) reported 5 cases of portal vein injury, including two treated with reconstruction of the portal vein and prothetic graft implantation, one with reanastomosis of

the portal vein, and two with oversewing of the portal vein. Sundarakumar et al. (2) reported endovascular intervention for traumatic portal venous hemorrhage complicated by portal hypertension.

Conflict of Interest Statement

This work was supported by clinical research grant from Pusan National University Hospital in 2017.

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