Life-threatening abdominal injury during a soccer game: a rare clinical case

Futbol maçında gelişen hayatı tehdit edici karın yaralanması: Nadir bir klinik olgu

Eray KARA, Gökhan İÇÖZ, Sinan ERSİN, Ahmet ÇOKER

Soccer (football) is a popular sport worldwide and can result in severe abdominal injuries. Nevertheless, the necessity of surgical intervention for abdominal organ injuries has been reported rarely. We report a case who was injured during a soccer game who underwent abdominal surgery. Distal subtotal pancreatectomy, splenectomy, cholecystectomy, and choledochotomy + T-tube drainage were performed. He was discharged on the postoperative seventh day without any complication.

Key Words: Abdominal injury; soccer; surgery.

Over the past two decades, soccer (referred to as “football” in Europe) has rapidly increased in popularity, with nearly 80 million young and recreational players worldwide.[1] This widespread participation has been accompanied by a large number of injuries. Soccer injuries are reported to be only one-fifth as frequent as and less severe than injuries sustained in American football.[2,3] Intra-abdominal organ injuries due to sports traumas, especially in soccer, are relatively rare. Hereby, we present a case with splenic artery laceration and pancreas and gallbladder injuries due to being kneed in the abdomen during a football game.

CASE REPORT

An 18-year-old male football player complained of mild, chronic, non-colicky abdominal pain, vomiting and nausea following blunt abdominal trauma caused by being kneed in the abdomen. Although he felt fine immediately after the trauma, he was taken to the medical center 12 hours later. The physical signs on admission were abdominal pain with rebound tenderness in all quadrants, vomiting and nausea. The pain, which had been present approximately the last six hours, had gradually worsened. The patient’s blood pressure was 120/70 mm Hg, with pulse of 100/min. No anomalies were detected on abdominal X-ray, but ultrasonography and computerized tomography revealed enlargement and edema of pancreatic body and fluid collection within the pelvis (Fig. 1). The laboratory values of the patient were as follows: hematocrit: 40.6%, white blood cell (WBC): 13700/mm3, aspartate aminotransferase (AST): 31 U/ml, alanine aminotransferase (ALT): 30 U/ml, lactate dehydrogenase (LDH): 461 U/ml, and serum amylase: 1048 U/ml. As a result, surgical intervention was decided.

On surgical exploration of the abdomen, a large hematoma entirely involving the transverse mesocolon, transection of the pancreatic body and fluid collection within the pelvis (Fig. 1). The laboratory values of the patient were as follows: hematocrit: 40.6%, white blood cell (WBC): 13700/mm3, aspartate aminotransferase (AST): 31 U/ml, alanine aminotransferase (ALT): 30 U/ml, lactate dehydrogenase (LDH): 461 U/ml, and serum amylase: 1048 U/ml. As a result, surgical intervention was decided.
In the present case, the distal pancreas was removed and the proximal aspect of the pancreas was closed with non-absorbable sutures. Isolated gallbladder, extra-hepatic bile duct or porta hepatis injuries due to external trauma are exceedingly rare, often require repair of the bile duct with or without drainage, and are usually associated with cholecystectomy.[11,12] In the present case, we performed cholecystectomy with cholecystotomy and T-tube drainage. The spleen is the most commonly injured organ in blunt abdominal trauma, though it was reported rarely in sports trauma. Korkut et al.[13] had reported two cases of spleen ruptures due to football trauma to the abdomen. In our case, there was an active bleeding due to laceration of the splenic vasculature, and splenectomy was performed.

In conclusion, serious abdominal injuries resulting from sports are rare but increasing in number worldwide.[14-16] The potential for misdiagnosis is significant and the consequences may be serious. Patients with abdominal pain should be taken very seriously and investigated with appropriate diagnostic equipment. In cases in which there is a serious concern about an intra-abdominal injury, transport of the patient, preferably to a trauma center, should be done rapidly. There should not be excessive delays in starting intravenous fluids or administering time-consuming procedures.[16-21] Since the early signs of injury may often go unrecognized, even in those cases progressing to shock and collapse, it is imperative that all clinicians be aware of such injuries.

REFERENCES

12. Andrén-Sandberg A, Alinder G, Bengmark S. Accidental lesions of the common bile duct at cholecystectomy. Pre- and...