CASE REPORT

Massive rectal bleeding distant from a blunt car trauma

Saignement massif à distance d’un traumatisme contusif, suite à un accident de voiture


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Summary  Mesenteric trauma is one of the possible injuries caused by the use of seat belts in case of motor vehicle crash. We report here a rare case of rectal bleeding by rupture of a mesosigmoid haematoma. An emergent laparotomy revealed a mesosigmoid haematoma with a centimetric rectal perforation. The wearing of safety belts added some specific blunt abdominal trauma, which directly depends on lap-and-sash belts. Mesenteric injuries are found out up to 5% of blunt abdominal traumas. ’’Seat belt mark’’ leads the surgical team to strongly suspect an intra-abdominal trauma. When ’’seat belt mark’’ sign is found, in patients with mild to severe blunt car injuries, CT-scan has to be realised to eliminate intra-abdominal complications, including mesenteric and mesosigmoid ones. In case of proved mesenteric haematoma associated to intestinal bleeding, a surgical treatment must be considered as first choice. Conservative approach remains possible in stable patients but surgical exploration remains necessary in unstable patients with active bleeding.

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Résumé  Le traumatisme du mésentère est un des dommages causés par l’utilisation de la ceinture de sécurité en cas d’accident de véhicule. Nous reportons ici un rare cas de rectorrhagie due à la rupture d’un hématome du mésosigmoïde. Une laparotomie en urgence a révélé un hématome du mésosigmoïde avec perforation rectale centimétrique. L’utilisation de la ceinture

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de sécurité a rajouté des caractéristiques spécifiques aux traumatismes abdominaux dépendant directement du système des ceintures à trois points. Les plaies du mésentère sont constatées jusqu’à 5% des traumatismes contusifs abdominaux. Le « signe de la ceinture de sécurité » conduit l’équipe chirurgicale à suspecter fortement un traumatisme intra-abdominal. Lorsque le « signe de la ceinture de sécurité » est retrouvé chez les patients qui présentent des contusions suite à un accident de voiture, une TDM devrait être réalisée afin d’exclure la présence de complications intra-abdominales, y compris celles du mésosigmoid. En cas d’hématome du mésentère prouvé, avec rectorrage, le traitement chirurgical devrait être le traitement de choix. Un traitement conservatif est envisageable chez les patients instables mais l’exploration chirurgicale demeure nécessaire chez les patients instables avec saignement actif.

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Introduction

Mesenteric trauma is one of the possible injuries caused by the use of seat belts in case of motor vehicle crash [1]. In addition, this is often associated to delayed time in diagnosis and therapy approach. Reports about this trauma are infrequent and usually associated to other intra-abdominal injuries. We report here a rare case of rectal bleeding by probable rupture of a mesosigmoid haematoma in the upper part of rectum 10 days after a serious blunt car injury.

Observation

A 54-year-old man admitted at hospital 10 days after a vehicle accident (driver) for illness sensation followed by rectal bleeding. He has been treated for two fractures one at a whistle and the other at a leg immediately after the accident and discharged with 4500 UI per day of tinzaparin sodium. Clinically, his blood pressure was 80/40 mmHg, pulse 110 per minute. Abdominal inspection noticed the typical aspect of the “seat belt mark” represented by ecchymosis and haematomas corresponding to safety belt contact points. The abdomen was tender to palpation. Haemoglobin was at 9,4 g/dL. An injected computed tomography showed a haematoma (2,5 × 3,5 × 4,5 cm) in mesosigmoid with an isolated air image inside the haematoma near the upper part of the rectum suggesting a possible colorectal communication between the haematoma and the rectum (Figs. 1a and b). There was no evidence of active bleeding, considering the limits of the CT-scan in the evaluation of such a parameter, when the flow is not important. There was no pneumoperitoneum. An emergent laparotomy revealed a mesosigmoid haematoma with a mild amount of free bloody liquid in closed to a wound of mesosigmoid peritoneal layers. Following this rupture permitted to find a centimetric rectal perforation localised on the posterior wall. Surgical resection was performed with colon-rectal side-to-end anastomosis. The specimen’s anatomic-pathological evaluation indicated a colic acute perforation with mesenteric haematoma and peritoneal reaction, according to a traumatic origin (Fig. 2). The post-operative course was uneventful and patient was discharged 14 days after admission.

Discussion

“Seat belt syndrome” is an entity, created by introduction of restraint safety systems on motor vehicles [1]. The wearing of safety belts added some specific blunt abdominal trauma, which directly depends on lap-and-sash belts. Mesenteric injuries are found out up to 5% of blunt abdom-

Figure 1  a: CT-scan showing a small vascular tonality image inside mesosigmoid. b: Coronal view shows inside the mesosigmoid small bubbles demonstrating communication with digestive tube.
inal traumas [2], regarding of the small bowel or the gut or both. Colon injuries are rarer than small bowel’s ones [4]. In the present report, the ’’seat belt mark’’ sign, which lead the surgical team to strongly suspect an intra-abdominal trauma. This aspect of clinical presentation appears as an important element in the decision flow-chart. The presence of such a mark has been associated to an elevated incidence of significant organ injuries [3]. There are several studies describing the importance of early diagnosis. In this context, it is necessary to emphasize how a long delay is associated with higher percentages of morbidity and hospital stay even though authors agree about no increasing of mortality rates [4,5]. Computed tomography has been indicated as the most accurate imaging tool in the diagnosis of intra-abdominal injuries, particularly regarding of mesenteric blunt trauma [6,7]. The therapeutic approach depends on quantity and quality of lesions. In case of proved mesenteric haematoma associated to intestinal bleeding, a surgical treatment must be considered as first choice therapy even if in some selected cases arterial embolization could successfully be used [8]. This shows the importance of CT-scan in presence of ’’seat belt mark’’ sign in patients with mild to severe blunt car injuries to eliminate intra-abdominal including mesenteric and mesosigmoid complications. Usually conservative approach remains possible in stable patients; however, surgical exploration is mandatory in unstable patients with active bleeding.

Conflict of interest statement

No potential conflict of interest relevant to this article was reported.

References