A 77-YR-OLD woman, with history of hypertension and obesity (body mass index 30 kg/m²), underwent an elective T4-S1 arthrodesis for scoliosis. The patient was in prone position, with one horizontal cushion under chest at shoulder level and two under iliac crests, the abdomen being free of any compression, allowing a sliding hand under (fig. A).

During this 8-h surgical procedure, the patient remained hemodynamically stable despite a blood loss of 1 l, receiving crystalloids, and blood transfusion.

In the recovery room, physical examination revealed skin-compression marks and a blister (arrow) on the epigastric area (fig. B). Postoperative liver dosages revealed: lactate 4.8 mM, aspartate aminotransferase 581 U/l, alanine aminotransferase 455 U/l, and prothrombin time of 19.5 s (control 13.1 s). As liver ischemia is a known complication of prone position related to increased abdominal pressure, especially in the case of obesity, an abdominal computed tomography was performed and revealed a 6-cm contusion (arrow) on the left liver (fig. C), superimposed to the cutaneous mark. This location suggests that the thoracic cushion had slipped to epigastric area during the procedure, compressing the liver against the vertebrae and leading to contusion by both increased abdominal pressure and surgical microtraumas. The outcome of the patient was good, the liver biological tests were normalized 1 week after.

This case reports that prone position for scoliosis surgery may lead not only to liver ischemia but also to liver contusion. The patient’s position has to be checked regularly during surgery to avoid such abdominal complication, and the cushion may need repositioning after discussion between the surgical and anesthetic teams.

References