Subcapsular hematoma of the liver due to intercostal anesthesic blockage after cholecystectomy: case report

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SUMMARY: Subcapsular hematoma of the liver due to intercostal anesthesic blockage after cholecystectomy: case report.

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The subcapsular hematoma of the liver (SHL) are the results of injuries such as liver needle biopsy, liver trauma, pregnancy illnesses, parasitic diseases and others. The approach of these lesions depends on the various clinical presentations of subcapsular hematoma of the liver because it may be small with minimal clinical repercussion, managed only by ultrasound observation. In some situations the SHL may present large dimensions with hemodynamic instability.

A case of subcapsular hematoma of the liver secondary to anesthesic intercostal blockade to control the postoperative pain after cholecystectomy is reported. A 34-year-old woman was submitted to intercostal anesthesic blockade after cholecystectomy for treatment of cholelithiasis. The blockade evolved with pain in right flank followed of mucocutaneous pallor and fall of the haematocrit and hemoglobin levels. At relaparotomy, subcapsular hematoma of the liver was proven and tamponed with compresses. The patient had good postoperative evolution being discharged from hospital, after removing the compresses.

In conclusion, the intercostal anesthesic blockade, as any other medical procedure, is not exempt of complications. Therefore, it must be carried through in well selected cases; Anyway nowadays, there are efficient drugs for the control of postoperative pain.

KEY WORDS: Liver - Subcapsular hematoma - Intercostal anesthesia - Surgery.

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Introduction

The subcapsular and intrahepatic hematomas of the liver are lesions usually caused by traumas for liver biopsy, penetrating or blunt traumas of the liver or pregnant diseases as HEELP syndrome and eclampsia (1-7). The approach of these lesions depends on the various clinical presentations of the hematoma because it may be small with minimal clinical repercussion, managed only by ultrasound observation. In some situations the SHL may present larger dimensions with hemodynamic instability. In this case, aggressive treatments are necessary.
as arterial embolization, hepatic artery ligature or hepa-
tectomy (1, 4, 7-9).

The aim of this report is to describe a case of SHL
due to puncture for intercostal anesthetic blockade af-
after open cholecystectomy and to discuss the various cau-
ses of the SHL and also the modalities of the treatment.

Case report

A 34-years-old woman underwent open cholecystectomy for cal-
culus cholecystitis. At the end of surgery, the anesthesiologist mo-
ded an intercostal anesthetic blockade with bupivacaine 0.25% for con-
tral of the post-operative pain. Thus, it was released a punctu-
re in the 8th intercostal space at the axillary medium line level. On
the 2nd post-operative day the patient began to complain about ab-
dominal pain in right flank. The physical examination revealed cu-
taneo-mucose paleness and abdominal pain in right flank on pal-
pation. The blood cell test showed 22% hematocrit and 7.6 g/L he-
moglobin, respectively. The patient received 3 units of blood cell
concentrates and she was reoperated on for surgical revision.

Surgery showed blood in the subhepatic and subphrenic spa-
ces, and a large SHL in segment VII with active bleeding. Liver packa-
ge with compresses, peritoneal lavae and tubular drainage of the
subphrenic space were carried out. At the end of surgery, a small skin
hematoma by puncture for anesthetic intercostal blockade was ob-
erved in the same anatomic topography of the SHL (Fig. 1).

In the post-operative time the patient was led to intensive care
unit where she received blood concentrates, frozen plasma, and lar-
gle spectrum antibiotics. Computed tomography showed a hyper-
dense image in segments VI and VII of the liver corresponding the
SHL (Fig. 2).

The patient has a good evolution and in the 4th postoperative
day she was submitted the relaparotomy for retrieval of compresses
and drain.

She had a good clinical evolution and she was discharged seven
days after surgery in good conditions.

Discussion

The SHLs are uncommon lesions usually due to need-
de biopsies, blunt traumas and pregnant diseases like HEL-
LP syndrome and eclampsia (1-7). The physiopathology
of SHL in the pregnancy isn’t clearly understood; some
authors have suggested that the SHL are caused by pe-
riportal hemorrhage necrosis and hypertension, being
convulsions and vomits predisponents factors of ruptu-
re of the Glisson’s capsule (6). In the majority of cases,
the SHL have small diameter and are asymptomatics and
often diagnosed incidentally by ultrasounds (3, 5).

Others diseases and medical procedures may be im-
plicated to the development of SHL as fascioliasis, shock
wave extracorporeal renal lyorthrips and cardiac re-
suscitation massage (8, 10). In the present case, it is lo-
gical to think that the SHL had been caused by the punc-
ture for anesthetic blockade. It is the first case of this
etiology described in the literature.

Giants SHL may provoke hemodynamic instability
and in several cases it may be treated by hepatic artery
embolization, percutaneous drainage or hepatectomy.
The SHL may occur also in patients submitted to liver
transplantation (7, 9, 11).

In our case, the surgical strategy was the tampona-
de of SHL by three compresses plus peritoneal draina-
ge with the program of a new laparotomy for retrieval
of the compresses and assessment of the SHL. The pa-
tient had a good post-operative evolution without the
necessity of a more aggressive approach.

Conclusion

The SHLs are lesions caused by liver trauma that may
require conservative or aggressive approaches depending
on the clinical characteristics and evolution. The inter-
costal anesthetic blockade must be released in selected
patients by experienced anesthesiologists to avoid ia-
trogenic complications such as SHL.
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References