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Keywords
V/P shunt, surgical treatment, Pseudotumor Serebri Syndrome, liver subcapsular pseudocyst

ABSTRACT

Introduction: In this study, it is aimed to present a very rare liver subcapsular accumulation of a patient after ventriculoperitoneal shunt surgery who was diagnosed with Pseudotumor cerebri syndrome with progressive sight loss.

Case: The patient is a 38-year-old female who was diagnosed with lomber spondylose and later operated with stabilization and fusion surgery. Seven days after the operation her headaches became clear and blackout in her left eye was seen and she was observed with medical treatment. CSF pressure of her was measured to be 25 cm/ water, so she was diagnosed as pseudotumour cerebri and taken to the operation immediately. On the 3rd day of post-operation, there occurred to be intense stomach ache and abdominal sensitivity of the case. After the scanning of abdominal CT, 7 cm of liquid collection was detected in the shunt distal of liver subcapsular area.

Discussion: Liver pseudocyst should be considered, even if it is a rare complication when back striking abdominal pain and high liver enzymes are seen in patients with shunt dysfunction. USG and abdominal bt tests should be made for these patients. The drainage of the cyst and then the removal of the abdominal catheter should be applied.

INTRODUCTION

Pseudotumor Cerebri Sydrome (PTSS), is characterized with hydrocefaly intracranial infection in the form of obstructive lesion situated in the brain with the increase of intracranial pressure without radiological findings (1). It is called Pseudotumor Cerebri or idiopathic intracranial hypertension at the same time. It was first defined by Quinke in 1897 and its Diagnostic criteria were determined by Dandy in 1937 but its Patophysiology has not been described completely (2). The biggest risk factors are female sex and obesity. Its clinical

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symptoms are frequently seen as headache, loss of sight, dizziness, tinnitus and diplopy (3). Its most significant finding is papil oedema. However, cases without headache and papil oedema have rarely been found out. Treatment is priviliged with the retraction of secondery reasons of weight loss. If there are cases without any recovery then medical and surgical treatment can be used.

In this study, it is aimed to present a very rare liver subcapsular accumulation of a patient after ventriculoperitoneal shunt surgery who was diagnosed as Pseudotumor cerebri syndrome with progressive sight loss.

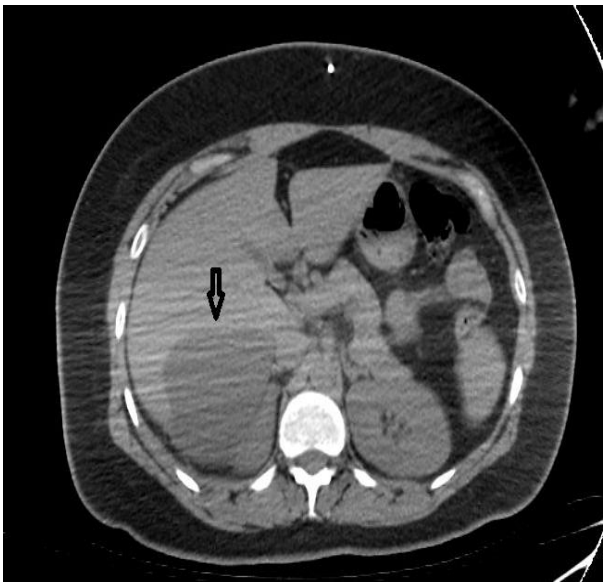

Figure 1. The enhanced CT after operation. (a) Axial CT showed water-like hypointense mass in the liver contour.

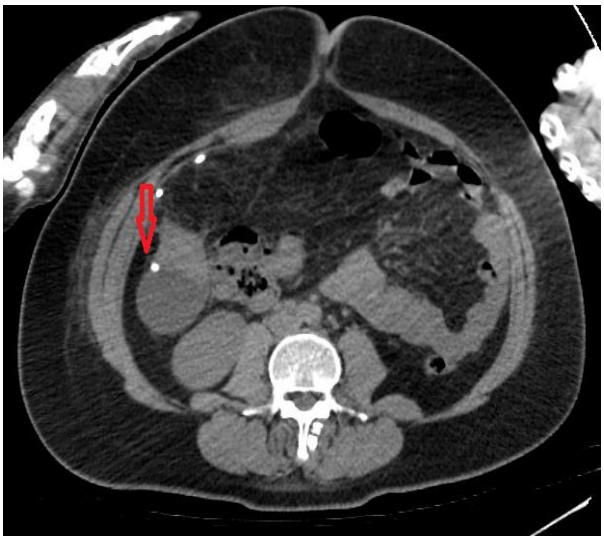

Figure 2. The enhanced CT after operation. (a) Axial CT showed water-like hypointense mass and catheter image in the liver contour.

Case

The patient is a 38-year-old female who was diagnosed with lomber spondylose and later operated with stabilization and fusion surgery. Seven days after the operation her headaches became clear and blackout in her left eye was seen and she was observed with medical treatment. Opthalmology consultation was demanded as a result of sight loss in her left eye 15 days after the operation. In her consultation in left eye optical atrophy and in her right eye papil oedema was detected as a result of which she was sent to our clinic straightaway.When the patient was seen in our emergency service her conscious was clear koopere oryante ır +/- BMI which was not deficit neurologically. In order to exclude pseudotumour cerebri possibility, firstly cranial mrg, diffusion mrg, and venography were applied to her. As there were not any patological find-outs, CSF pressure of her was measured to be 25 cm/ water, so she was diagnosed as pseudotumour cerebri and taken to the operation immediately. Lumboperitoneal shunt was set in the surgery. She was discharged on the 4th day of post operation as her oedema in the right eye had drawn back and her headache had soothed.2 months later she came again with serious headache and sight loss in the right eye.CSF pressure measured to be 29 cm/ water via LP. She was consulted to opthalmology clinic with the diagnosis of Lumboperitoneal shunt dysfunction for the fenestration of optical nerve cover fact. There was not any extra pathology in the following of the operated case. After ' years, she applied to emergency service with the increase of sight loss, headache, tinnitus and dıplopy. After neuroimaging, CSF was measured to be 28 cm/water, therefore neuronavigation guided ventriküloperitoneal shunt was planned. After the operation, the complaints of the patient decreased. On the 3rd day of post operation, there occurred to be intense stomach ache and abdominal sensitivity of the case. After the scanning of abdominal CT, 7 cm of liquid collection was detected in the shunt distal of liver subcapsular area(fugure 1,2,3,4). When USG performed; dren was placed into the subcapsular area. The liquid not compatible to the CSF was discharged for three days.

Then shunt distal revision was made with reoperation.

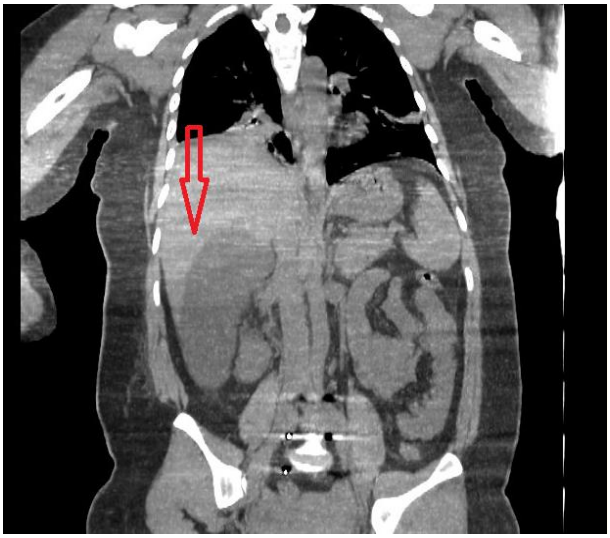

Figure 3. The enhanced CT after operation. (a) Coronal CT showed water-like hypointense mass in the liver contour.

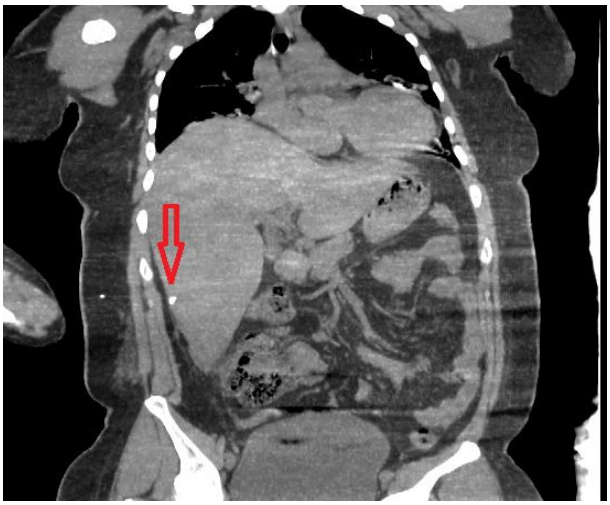

Figure 4. The enhanced CT after operation. (a) Coronal CT showed water-like hypointense mass and catheter image in the liver contour.

Discussion

Pseudotumor Cerebri is often seen in women, that is; the intensity of Pseudotumor Cerebri for general population is 0,9/100.000 while it is 19,3/100.000(1,2) for obese women who are at a childbearing age(4,5). It is essential to start treatment without delay as the sydrome causes headache and progressive sight loss. The aim of the treatment is to control headache and to protect seeing. During the treatment, making the obese patients lose weight helps most patients recover without any need of medication. The first option in medical treatment is a carbonic anhidraz inhibitor, asetolozolaid which is used to decrease the production of BOS pressure(6). Topiramat and Furosemid can be started at chosen cases as well(6). Optical nerve fenestration, shunt, venos sinüs stent and barıatrıc surgery are applied in surgeric operations.Ventriculoperitoneal or lumboperitoneal shunt are applied when the patients utilise from lomber ponction in case of no progress in medical treatment(7). In these operations, especially shunt obstruction, infection, intracranial hypotension, and mechanic complications due to the catheter can be observed. Obctruction that is one of the often seen reasons of shunt dysfunction can be a result of pseudocysts growing in abdominal part.

The frequency of mentioned complication is between 0,25% and 10 % among all v/p shunt complications in theory(8,9). Pseudocysts in liver subcapsular area is rarely seen in literature. 16 cases have been reported in all literature so far.the forming of pseudocysts in liver is defined as two kinds. In the first one, there occurs to be cyst existing in intraaxial in which the shunt dystal is within the liver parenchymal. The second kind happens to be in extraaxial and its catheter dystal is in the glisson capsul. As the capsul is sensitive to the pain, in extraaxial pseudocysts, heavy pain striking to the back in lower right dial and hard breathing due to dıaphragm irritation are seen (10).

In the cases there happens to be pseudoscysts, the increase of liver enzymes can be observed. In our case, the increase in sub ast ggt alp parameters as a result of intense cyst formation and the pressure of gallbladder were detected. In diagnosis, first abdominal USG among non invasive verifications and then for some cases the imaging of cyst size by abdominal tomography can be chosen. In the treatment, when the other 15 cases are examined , it is seen that shunt dystal revision is made when there is no infection is found in the content of the cyst after the aspiration of extraaxial cysts. Shunt dystal revision is suggested instead of cyst aspiration because of bleeding risk in liver cysts. In our case, shunt revision operation was applied as there were no cells in CSF after the drainage of catheter within the cyst for 3 days and the culture was negative.

Abdominal pseudocyst can repeat after revision surgery. The repetition rate can change from 7,1 % to 62 % in literature. On the other hand, there are no

reports on the recurrency of liver pseudocysts.

Conclusion

Liver pseudocyst should be considered, even if it is a rare complication, when back striking abdominal pain and high liver enzymes are seen at patients with shunt dysfunction. USG and abdominal CT tests should be made to these patients. The drainage of the cyst and then the removal of abdominal catheter should be applied. When the cell is negative in CSF and when 3 negative cultures were seen, then catheter should be set with reoperation. In these operations, cooperation with the general surgery staff should be made in order to remove the shunt dystal from the liver to a distant part by open surgery or laparoscopıc methods.

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