Prikaz slučaja / Case Report

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Žučni kamenci i pravo vreme operacije – čekati ili intervenisati?

Gallstones and timely surgical intervention – wait or operate?

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Sažetak

Uvod. Žučna kalkuloza (ŽK) je najčešći uzrok bilijarnog pankreatitisa. Nakon smirivanja akutne faze pankreatitisa (AP), u skoro svim slučajevima primenjuje se hirurško lečenje (holecistektomija).

Cilj rada. Prikazati pravo vreme za operaciju žučnih kamenaca u slučaju pankreatitisa kao komplikacije.

Prikaz slučaja. Pacijent starosti 85 godina, javlja se zbog bolova u trbuhu. Pacijent afebrilan, eupnoičan, bleđe boje kože, normalne prebojenosti vidljivih sluznica; TA 140/80 *mmHg,* difuzna bolna osetljivost abdomena. Nativni rendgen abdomena pokazao je hidroaerične nivoe. Pacijent upućen hirurgu i hitno je operisan. Nije urađena holecistektomija. Zbog kardiovaskularne bolesti i promena na krvnim sudovima, pacijent je imao dve kardiohirurške intervencije. Tri meseca nakon kardiohirurškog zahvata, pacijent se javlja izabranom lekaru jer je požuteo. Fizikalnim pregledom ustanovljena žuta prebojenost kože i vidljivih sluznica, afebrilan, bez bolne osetljivosti abdomena. Pregledom krvi na infektivne agense, negativna antitela na viruse hepatitisa *B, C* i *HIV.* Abdominalnom ultrasonografijom viđen kamen u žučnoj kesici, postoji opasnost od recidivantnog bilijarnog pankreatitisa. Pacijent podvrgnut operativnom zahvatu totalne holecistektomije.

Zaključak. Pacijenti sa žučnim kamencem imaju povećan rizik od akutnog pankreatitisa. Holecistektomiju treba obaviti za vreme prve hospitalizacije kod postojanja kalkuloze žučne kesice sa komplikacijom bilijarnog pankreatitisa.

Ključne reči: žučni kamenci, pankreatitis, holecistektomija, primarna zdravstvena zaštita

Abstract

Introduction: Gallstones are the most common cause of biliary pancreatitis. After the alleviation of the acute phase of pancreatitis, the surgery follows in the majority of cases (cholecystectomy).

Objective: To present when is the right time for surgical intervention in gallstone cases after pancreatitis as a complication.v

Case report: An 85-year-old patient presents with abdominal pain. He is afebrile, eupnoeic, pale, BP 140/80 mmHg, with diffuse abdominal tenderness to palpitation. Native abdomen X-ray shows hydroaeric levels. The patient was referred to a surgeon and operated on urgently. Cholecystectomy was not performed. Due to cardiovascular disease and problems with blood vessels, the patent had had two cardiosurgical interventions in the past. Three months after cardiosurgical intervention the patient pesents with jaundice at his CiP office. Physical examination confirms the yellow color of skin and mucosae. The patient is afebrile, without abdominal tenderness. Serological blood tests were negative for hepatitis B, C, and HIV. Abdominal ultrasonography showed a stone in the gallbladder and it was consistent with greater risk of recidivant biliary pancreatitis. The patient was operated and the total cholecystectomy was performed.

Conclusion: Patients with gallstones are at higher risk for acute pancreatitis. In patients with gallstones and consecutive biliary pancreatitis as a complication, cholecystectomy should be performed during the first hospitalization.

Keywords: gallstones, pancreatitis, cholecystectomy, primary health care

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Uvod

Pojava akutnog bilijarnog pankreatitisa se povećava širom sveta. Jedan od mogućih razloga je povećana gojaznost među ljudima koja je povezana sa povećanim rizikom od bolesti žučnih kamenaca[1], koji nastaju taloženjem sadržaja žučne kese, holesterola i bilirubina. To su čvrste nakupine kamenaca koji mogu nastati u žuči ili žučnim putevima. Zbog nepostojanja bilo kakvih simptoma, mnogi pacijenti i ne znaju da ih imaju. Preko 70% kamenaca žučne kesice je asimptomatsko[2,3]. Kliničke manifestacije žučne kalkuloze su varijabilne, bolest može početi naglo s bolom u trbuhu, mukom, povraćanjem, povišenom temperaturom (intermitentnog tipa). Žutica je ređe prisutna.

Abdominalna ultrasonografija predstavlja metod izbora za dijagnozu žučne kalkuloze, ali i njenih komplikacija[2,4]. Komplikacije u vidu septikemije, peritonitisa, ileusa su retke. Žučni kamenac je najčešći uzrok bilijarnog pankreatitisa[5]. Žuč aktivira enzime pankreasa izazivajući kaskadnu reakciju enzimskog oštećenja i autodigestiju pankreasa. Lečenje akutne upale žučne kesice može biti medikamentno i hirurško. Lečenje akutne faze zahteva smirivanje bolova, lečenje infekcije i poboljšanje opšteg stanja. Nakon smirivanja akutne faze u skoro svim slučajevima primenjuje se hirurško lečenje (holecistektomija)[6,7].

Zastupljenost akutnog pankreatitisa (AP) u celom svetu je različita, zbog različitih etioloških faktora. Raspon se kreće od 5% do 80% u zemljama Evropske Unije, sa nešto nižom zastupljenošću u Velikoj Britaniji (Engleka, Škotska), Holandiji, Nemačkoj, i visokoj u Finskoj[8]. Kao najčešći uzrok AP, u nekih 40%-70% slučajeva su oboljenja bilijarnog trakta, potom prekomerna upotreba alkohola, 25%-30%. Istraživanja u Srbiji, ŽK svrstavaju kao najčešći uzrok AP (oko 51%)[9].

Cilj rada

Cilj rada je bio da prikažemo pravo vreme za operaciju žučnog kamenca u slučaju pankreatitisa kao komplikacije.

Prikaz slučaja

Opisali smo slučaj starijeg bolesnika muškog pola koji je imao dve epizode akutnog pankreatitisa pre nego što je urađena holecistektomija i odstranjena ŽK kao etiološki faktor. Metodološki, radi se o prikazu slučaja iz prakse izabranog lekara Doma zdravlja Novi Beograd i pregleda medicinske dokumentacije pacijenta.

Pacijent starosti 85 godina, penzioner, javlja se svom izabranom lekaru u Domu zdravlja zbog bolova u trbuhu. Anamnestički, negirao je postojanje drugih tegoba. Medicinska istorija pacijenta: prisutni komorbiditeti: arterijska hipertenzija, dijabetes melitus, benigna hiperplazija prostate. Ne

Introduction

Acute biliary pancreatitis is on the rise worldwide. One of the possible reasons is the rise in the the number of obese people, which bears higher risk of gallstones[1]. The gallstones originate from the precipitation of the gallbladder contents, cholesterol, and bilirubin. Due to the lack o symptoms, many patients are unaware of their existence. Over 70% of gallstones are asymptomatic[2,3]. Clinical manifestations of gallbladder calculi vary, and the disease may start abruptly with abdominal pain, nausea, vomiting, intermittent fever. Jaundice is rare.

Abdominal sonography is a diagnostic method of choice for gallbladder calculosis and its complications[2,4]. Complications such as septicemia, peritonitis, ileus are rare. Gallstones are the most common cause of biliary pancreatitis.[5] Bile activates pancreatic enzymes, thus causing a cascading reaction of enzymatic damage and autodigestion of the pancreas. The treatment of acute gallbladder inflammation includes the use of medications and surgery. The acute phase treatment includes pain alleviation, infection healing, and improvement of the patient`s general condition. After the alleviation of the acute phase of the disease, surgical intervention is performed in the majority of cases (cholecystectomy)[6,7].

The incidence of acute pancreatitis varies worldwide, due to different etiological factors. It ranges from 5% to 80% in the EU countries, with a somewhat lower incidence in the United Kingdom (England, Scotland), Netherlands, Germany and high incidence in Finland.[8] The most common cause of acute pancreatitis (40% - 70%) is biliary tract disorders, followed by alcohol abuse (25% - 30%). The Serbian research data show gallstones are the most common cause of acute pancreatitis (around 51%)[9].

Objective

Our article aimed to show the right time for surgical intervention in gallstone cases with consecutive pancreatitis as a complication.

Case report

We presented the case of an older male patient with two episodes of acute pancreatitis before the cholecystectomy was performed. The methodology included a case report from the GP practice in Primary health center, Novi Beograd and a review of the patient`s medical records.

An 85-year-old patient, retired, presents at his GP`s office with abdominal pain. He denies any other health problems. His medical history includes hypertension, diabetes, benign prostate hyperplasia. He doesn`t smoke or drink alcohol. He has no known allergy to medications. He was diag-

puši, ne konzumira alkohol. Alergiju na lekove negira. Pre 10 godina je ultrasonografijom dijagnostikovana kalkuloza žučne kese. Redovno koristi terapiju zbog komorbiditeta: ACE inhibitore, beta blokatore, oralne antidijabetike i antagoniste alfa-adenoreceptora. Fizikalnim pregledom koji je usledio po uzimanju anamneze, utvrđeno je da je pacijent afebrilan, eupnoičan, bleđe boje kože, normalne prebojenosti, vidljivih sluznica; TA 140/80 *mmHg*, difuzna bolna osetljivost abdomena. Laboratorijske analize hitne krvne slike urađene u Domu zdravlja, bile su u fiziološkim granicama. Nativni rendgen (RTG) abdomena pokazao je hidroaerične nivoe. Ultrazvuk abdomena nije moguće adekvatno interpretirati (prisutan izražen meteorizam), vidljiva kalkuloza žučne kesice. Pacijent hitno upućen hirurgu od strane izabranog lekara. Zbog prisutnih znakova ileusa, hitno je operisan. Dijagnoza po otpustu: *Pancreatitis acuta*. *Ileus paralyticus, Diverticulosis sygmoidei colonis*, operacija: *Laparotomia explorative, Adhaesiolysis*. Otpušta se iz bolnice oporavljen i sa savetom da se pridržava higijensko-dijetetskog režima. Nije učinjena holecistektomija.

U narednih godinu dana pacijent je dva puta hospitalizovan na kardiohirurgiji zbog kardiovaskularnog oboljenja i promena na krvnim sudovima (*Substititio valvulae aortae cum biocor valve. No 23. bypass aortocoronarius simplex; Stenosis a. carotis internae dex*. 85% *et sin*. 30%).

Tri meseca nakon drugog kardiohirurškog zahvata pacijent se javlja izabranom lekaru jer je požuteo. Fizikalnim pregledom ustanovljena žuta prebojenost kože i vidljivih sluznica, afebrilnost, bez bolne osetljivosti abdomena. Biohemijski parametri pacijenta: sedimentacija 80 (SE, normalne vrednosti <20), ukupni bilirubini 84,9 (normalne vrednosti 0-21), direktni bilirubin 67,2 (normalne vrednosti <5,1), transaminaze *AST* 245, *ALT* 478 (normalne vrednosti 0-40), alkalna fosfataza 282, CRP 82, amilaza u serumu 340. Pregledom krvi na infektivne agense, negativna antitela na viruse hepatitisa *B* (*HBS*), C (*HCV*) i *HIV*. Abdominalnom ultrasonografijom viđena distendirana žučna kesa, granične debljine zida bez raslojavanja, intrahepatični žučni putevi segmentno dilatirani, duktus holedohus proširen sa kalkulusom promera 8 *mm*. Dijagnostikovan holestazni sindrom, postoji opasnost od recidivantnog bilijarnog pankreatitisa. Pacijent ponovo podvrgnut operativnom zahvatu, totalne holecistektomije. Dijagnoza po otpustu*: Calculosa ves.fell; Pancratitis rec; Cholecystectomia.*

Diskusija

Kamenci u žučnoj kesici su čest uzrok akutnog pankreatitisa[1,6,10]. U radu smo izneli pojavu akutnog pankreatitisa kod starijeg muškarca provociranu kalkulozom žučne kesice. Pojava pankreatitisa je češća kod pacijenata sa žučnim kamencem[2] *Murat* i saradnici su pokazali da pacijenti starijeg životnog doba, više od 70 godina starosti, sa teškim komorbiditetima imaju približno dvostruki rizik od smrti[11].

nosed with gallstones ten years ago, using ultrasonography. The patient uses his medications regularly (ACE inhibitors, beta-blockers, oral antidiabetics, and alfa receptor blockers). Physical examination confirmed the patient was afebrile, eupnoeic, pale, BP 140/80 mmHg and had palpable abdominal tenderness. Urgent lab results were obtained and they showed no abnormalities. A native abdominal X-ray was performed and it was positive for hydroaeric levels. Abdominal sonography findings were inconclusive due to a large amount of gas in the abdomen, but a gallstone was seen. The patient was urgently referred to a surgeon. Due to the signs of ileus, urgent surgery was performed. Discharge letter diagnosis included *Pancreatitis acuta, Ileus paralyticus, Diverticulosis colonis sygmoidei.* Operation: *Laparotomia explorativa, Adhaesiolysis.* He was discharged as recovered and was advised about healthy nutrition. Cholecystectomy was not performed.

The following year patient was hospitalized twice at the Cardiosurgery ward, due to cardiovascular disease and blood vessel problems (*Substitutio valvule aortae cum biocor valve No23; By-pass aortocoronarius simplex; Stenosis arteriae carotis internae dex.85% et sin.30%*).

Three months after the second cardiosurgical intervention the patient presented at his GP office with jaundice. Physical examination confirmed a yellow color of skin and mucosae, the patient was afebrile and had no abdominal tenderness. Lab results: ESR 80 (ref<20), total bilirubin 84.9 (ref 0-21), direct bilirubin 67.2 (ref<5.1), AST 245, ALT 478 (ref 0-40), alkaline phosphatase 282, CRP 82, serum amylase 340. Serological blood tests were negative for hepatitis B, C, and HIV. Abdominal sonography confirmed distended gallbladder, wall thickness was marginal but not striated, intrahepatic bile ducts were segmentally dilated, ductus choledocus was dilated with calculus of 8mm. The cholestatic syndrome was diagnosed and there was a risk of recidivant biliary pancreatitis. The patient underwent surgery again with total cholecystectomy. Discharge diagnosis: *Calculosis vesicae felleae, Pancreatitis recidivans, Cholecystectomia.*

Discussion

Gallstones are the frequent cause of acute pancreatitis.[1,10,16] We presented the case of acute pancreatitis in an older man caused by the calculosis of the gallbladder. Pancreatitis is more common in patients with gallstones[2]. *Murat* et al showed that older patients, over 70 years of age and severe comorbidities have twice the higher risk of death[11].

Komorbidnost je prepoznata kao važan faktor kod pacijenata sa AP. Istraživanje u Srbiji pokazalo je da pacijenti sa značajnim komorbiditetima imaju povećan rizik od smrti u poređenju sa pacijentima koji ih nemaju, od 19 umrlih pacijenata, 16 (84,2%) je bilo sa komorbiditetima[9]. Akutni pankreatitis je potencijalno fatalna bolest sa stopom smrtnosti oko 1% - 5%, ali poslednjih godina pokazuje tendenciju smanjenja[12] Da li je hirurg pri prvom operativnom zahvatu trebalo da odstrani žučnu kesicu u kojoj je bilo prisutno kamenje, da bi se time izbegla ponovna hirurška intervencija i recidivirajući pankreatitis[6,8,13,14]. Istraživanja ukazuju da je bolje sprovesti operaciju odstranjenja ŽK što ranije, jer je pojava komplikacija manja[7]. Odlaganje holecistektomije za nekoliko nedelja izlaže pacijenta riziku od razvoja komplikacija ŽK. Mala incidencija komplikacija u vezi sa holecistektomijom, sugeriše da se ona sigurno može obaviti tokom hospitalizacije[1,15]. *Johnstone* i saradnici preporučuju holecistektomiju kao definitivni tretman tokom prve hospitalizacije ili u roku od dve nedelje od prijema, radi smanjenja rekurentnog pankreatitisa. U njihovom istraživanju 11% pacijenata je ponovo hospitalizovano sa dijagnozom recidivirajućeg pankreatitisa[15]. Istrživanja ukazuju da ŽK iniciraju napad pankreatitisa, ali ne i progresiju bolesti koja zavisi od količine enzima za varenje. Sigurno je da holecistektomija treba da se obavi za vreme prve hospitalizacije. Nisu pronađene razlike u zastupljenosti komplikacija među pacijentima koji su podvrgnuti ranoj holecistektomiji nasuprot kasnoj holecistektomiji[1§]. U svrhu lečenja, pored adekvatnog higijensko-dijetetskog režima medikamentne terapije, sprovodi se i hirurško lečenje, holecistektomija. Ciljano lečenje pacijenata sa ŽK smanjuje morbiditet, mortalitet i troškove lečenja.

Ograničenja ovog prikaza slučaja su što su prikazani podaci u vezi dijagnostičkih procedura i terapije urađeni na sekundarnom nivou, prikazani na osnovu dobijene otpusne liste pacijenta. U svakom slučaju nadamo se da predstavljeni podaci mogu poslužiti u podsticanju poštovanja i unapređenja postojećih smernica za sprečavanje ponavljajućeg pankreatitisa usled žučnog kamenca.

Zaključak

Pacijenti sa žučnom kalkulozom imaju povećan rizik od akutnog pankreatitisa. Pankreatitis treba tretirati u skladu sa uzrokom, ciljano i multidisciplinarno. Holecistektomiju treba obaviti za vreme prve hospitalizacije kod postojanja kalkuloze žučne kesice sa komplikacijom bilijarnog pankreatitisa. Smanjuje se rizik od ponavljajućih epizoda pankreatitisa, koji predstavlja značajan problem sa pridruženim komorbiditetima i potencijalnom smrtnošću.

Comorbidity is recognized as an important risk factor in patients with acute pancreatitis. The Serbian research showed the patients with severe comorbidities were at higher risk of death, compared to those without them. Of 19 patients who died, 16 (84.2%) were with comorbidities[9]. Acute pancreatitis is a potentially fatal disease, with the death rate 1% - 5%, with decreasing tendency in recent years.[12] Should the surgeon have removed the gallbladder which contained gallstones during the first surgical intervention and thus avoided repeated surgical intervention and recurrent pancreatitis[6.8.13.14]? The research shows it is better to perform cholecystectomy as soon as possible because there are fewer complications[7]. Postponing cholecystectomy for a few weeks puts a patient at risk of complications. A small incidence ofy complications connected with cholecystectomy suggests that it may be performed during the same hospitalization[1,15]. *Johnstone* et al recommend cholecystectomy as a definitive treatment during the first hospitalization or within two weeks from hospital admission, in order to reduce the incidence of recurrent pancreatitis. Their research showed 11% of patients were readmitted with the diagnosis of recurrent pancreatitis[15]. The research data indicate gallstones initiate pancreatitis attacks, but not the progression of the disease which is dependant on the number of digestive enzymes. It is safe to say, cholecystectomy should be performed during the first hospitalization. No difference was found in the representation of complications among patients who underwent early cholecystectomy as opposed to late cholecystectomy[15]. For the sake of treatment, besides adequate nutritional habits, medications, surgical treatment is also performed (cholecystectomy). Targeted treatment of patients with gallstones decreases morbidity, mortality and treatment costs.

The limitations of this case report are due to the data we were unable to obtain during the hospital treatment (diagnostic procedures and medications), which were reported in the discharge papers. Anyhow, we do hope that the presented data may serve as an incentive in following and upgrading current guidelines for the prevention of recurrent pancreatitis due to gallstones.

Conclusion

Patients with gallstones are at higher risk for acute pancreatitis. Pancreatitis should be treated in accordance with the cause, targeted and multidisciplinary. Cholecystectomy should be performed during the first hospitalization in the cases of gallbladder calculosis with biliary pancreatitis as a complication. It reduces the risk of recurrent pancreatitis. Pancreatitis is a severe problem, especially if combined with comorbidities, in which case it raises mortality risk.

Literatura / Reference

1. Jee SL, Jarmin R, Lim KF, R / *Referencesaman K. Outcomies of early versus delayed cholecystectomy in patients with mild to moderate acute biliary pancreatitis: a randomized prospective study*. Asian J Surg. 2018 Jan;1:41(1):47-54. https://doi.org/10.1016/j.asjsur.2016.07.010
2. Shabanzadeh DM, Sorensen LT, Jorgensen T. *Abdominal symptoms and incident gallstones in a population unaware of gallstone status*. Can J Gastroenterol Hepatol. 2016; 2016.http://dx.doi.org/10.1155/2016/9730687.
3. Ibrahim MO, Sarvepalli SH, Morris-Stiff G, et al. *Gallstones: Watch and wait, or intervene*.Clevel Clin J Med. 2018 Apr 1;85:323-331. http://doi:10.3949/ccjm.85a.17035.
4 Fanelli RD, Baron TH. *Endoscopic Ultrasound in the Management of Biliary Stone Disease.* In: Choledocholithiasis. Springer, Cham.2018; (pp. 217-233). https://doi.org/10.1007/978-3-319-74503-9_13.
5. Raraty MG, Sheel A, Neoptolemos JP. *Epidemiology and Etiology of Acute Biliary Pancreatitis.* The Pancreas: An Integrated Textbook of Basic Science, Medicine, and Surgery. 2018 Mar 7: 146-157.
6. Greenberg JA, Hsu J, Bawazeer M, et al. *Clinical practice guideline: management of acute pancreatitis. Can J Surg*. 2016;59(2):128-140.
7. Da Costa DW, Bouwense SA, Schepers Nj, et al. *Same-admission versus interval cholecystectomy for mild gallstone pancreatitis* (*PONCHO*): a multicentre randomised controlled trial. The Lancet. 2015 Sep 26;386(10000):1261-1268.
8. Gvozdenović K. *Magnetnorezonantna dijagnostika akutnog pankreatitisa.* Doktorska disertacija. Medicinski fakultet, Novi Sad, 2017.
9. Spasić M, Janković S, Stefanović S, Kostić I, et al. *Klinički i laboratorijski parametri povezani sa smrtnim ishodom kod akutnog pankreatitisa*. Vojnosanit pregl 2017;74(9):821-830. https://doi:10.2298/VSP160227100S
10. Noel R, Arnelo U, Lundell L, et al. *Index versus delayed cholecystectomy in mild gallstone pancreatitis: results of a randomized controlled trial*. HPB. 2018 Oct 1;20(10):932-938. Jk,https://doi.org/10.1016/j.hpb.2018.03.016.
11. Murata A, Ohtani M, Muramatsu K, Matsuda S. *Influence of co-morbidity on outcomes of older patients with acute pancreatitis based on a national administrative database*. Hepatobiliary Pancreat Dis Int. 2015 Aug;14(4):422-428.
12. Krishna SG, Kamboj AK, Hart PA, Hinton A, Conwell DL. *The changing epidemiology of acute pancreatitis hospitalizations: a decade of trends and the impact of chronic pancreatitis.* Pancreas. 2017 Apr;46(4):482. https://doi:10.1097/MPA.0000000000000783
13. Schepers Nj, Bouwense SA, Hollemans RA, et al. *Predicting a'difficult cholecystectomy'after mild gallstone pancreatitis.* HPB: the official journal of the International Hepato Pancreato Biliary Association, 2018. Dec.https://doi:10.1016/j.hpb.2018.10.015
14. Yadav D, Lee E, Papachristou GI, O'connell M. *A population-based evaluation of readmissions after first hospitalization for acute*. Pancreas. 2014 May 1;43(4):630-637.
15. Johnstone M, Marriott P, Royle TJ, et al. *The impact of timing of cholecystectomy following gallstone pancreatitis.* Surgeon. 2014 Jun 1;12(3):134-140. https://doi.org/10.1016/j.surge.2013.07.006.
16. Perez Lj, Parra JF, Dimas GA. *The Safety of Early Laparoscopic Cholecystectomy (< 48 h) for Patients With Mild Gallstone Pancreatitis*: A Systematic Review of the Literature and Meta-analysis. Cirugia Espanola (English Edition). 2014 Feb 1;92(2):107-113. https://doi:10.1016/j.cirev csp.2013.01.024.

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