A Case Report on Diagnosis and Management of Klatskin Tumor

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Abstract

Klatskin tumours are the most prevalent type of cholangiocarcinoma. They are perihilar tumours that are frequently discovered near left and right junction of hepatic ducts. The absence of early symptoms leads to the detection of most Klatskin tumours at an advanced, incurable stage. Despite developing adjuvant therapy regimens, survival results remain low. Surgery is now the gold standard of care and the only curative therapeutic option available. In this paper, we describe our experience with an asymptomatic patient with increased liver enzymes who was discovered to have a Klatskin tumour spreading into the left hepatic duct. The patient's diagnosis, care, and prognosis are reviewed. The example emphasises the significance of screening for hepatobiliary malignancies in older individuals with abnormal liver function parameters who are handled surgically.

Keywords: Klatskin tumours, cholangiocarcinoma, perihilar tumours, surgery

Introduction:

Bile duct tumours are uncommon neoplasms with incidence of 0.5-1 in 1 lakh. Predisposing variables include choledochal cysts and parasite infections, as well as primary sclerosing cholangitis (PSC), which has a thirty-fold greater risk.(1)Klatskin tumours are cholangiocellular carcinomas that involve the right and left bile duct junction.(2)The gastrointestinal system is the most common primary site of metastasis, followed by breast tissue.(3)Because there were no neuroendocrine tumours in other organs, the tumour was diagnosed as a hilar bile duct primary neuroendocrine tumour rather than a liver metastasis from other organs.(4)

Case Presentation:

A 55-year-old male visited to outpatient department with the complaint of abdominal pain, vomiting and generalized weakness. After complete history collection and physical examination physician advised for investigations and referred patient to inpatient department for symptomatic medical management.

As narrated by patient he was having abdominal pain since 2 months for which he approached to general physician in his locality. Pain was reduced for some time but gradually increased after ceasing the intake of analgesics. On revisit to the hospital with increased abdominal pain, physician referred him to regional multispecialty hospital.

On arrival pharmacological treatment was started with analgesics and antibiotics. An USG scan report revealed ductal wall edema with upper biliary dilation and autoimmune pancreatitis. (Fig 1) Hence, Endoscopic retrograde cholangiopancreatograpy was suggested. Result evidence of hepatomegaly and confirms the condition. Physician diagnosed patient as klatskin tumour.

Patient undergone surgery of cholecystectomy with portal lymphadenectomy under general anesthesia. Patient is treated with intravenous ciprofloxacin 200mg BD, amikacin 250 mg BD, analgesic Tramadol 100 mg BD, Inj. Pantaprazole 40 mg OD. Aafter removal of suture on 7th postoperative day patient is discharged on oral antibiotics.



Figure 1: Ultrasonography image showing hepatomegaly

Discussion:

Mersad Alimoradi et al in his study stated that hydatid cyst disease of the liver typically has a benign course, intrabiliary rupture is one of the most prevalent consequences. Intrabiliary rupture can be either frank or occult. The more prevalent kind of perforation occurs when hydatid material enters the biliary channels, causing biliary blockage and cholangitis with a high death risk. Occult perforation occurs when the hydatid cyst gets infected, resulting in a quiet presentation with only indications of suppuration. Imaging and pertinent history are frequently used to make a diagnosis. Medical and surgical intervention are used in treatment. For frank rupture, intraoperative cholangiography, choledocoscopy, and t-tube drainage are all suggested.(5-15)

Given the high rates of surgical intervention and high recurrence rates in the absence of steroid therapy, early detection of this uncommon condition can considerably improve results. To the best of our knowledge, the literature on patients with atypical manifestations of autoimmune cholangitis is relatively limited.(6)Prednisone medication improved our patient's condition. Patients frequently require steroid maintenance dosages. Rituximab is a therapeutic option.(16-21)

At the moment, the only potentially curative therapeutic option for biliary tract cancer is complete surgical resection, and surgical outcomes have improved considerably in the 2000s as a consequence of better patient selection, lower surgical mortality rates, and higher R0 resection rates. In addition, the effectiveness of chemotherapy and radiation as adjuvant therapies for resected biliary tract cancer is being investigated. The only FDA-approved chemotherapeutic drug for CC is gemcitabine, which, together with oxaliplatin, has been used as standard treatment for non-cirrhotic patients with unresectable CC. Regardless, the majority of patients have a poor prognosis and may develop early recurrence and distant metastases after surgery.(22-26)

However, since most tumours become symptomatic at a late stage, less than half of cholangiocarcinoma's are resectable at the time of presentation, and those patients have a median survival of less than 6 months. There has been no obvious therapeutic benefit established for neoadjuvant or adjuvant therapy. There is no standard palliative chemotherapy regimen in place.(27-29)

Conclusion:

A surgical intervention is a best method Endoscopic retrograde cholangiopancreatography is performed in this case and it was effective. Alternative therapy can also be considered.

References:

 Schmeding M, Neumann U, Neuhaus P. Colonic metastasis of Klatskin tumor: Case report and discussion of the current literature. World J Gastroenterol WJG [Internet]. 2006 Sep 7 [cited 2022 Aug 7];12(33):5393–5. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4088212/

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- 2. Kurt S, Ulukuş Ç, Kazaz SN, Astarcıoğlu İ. Bilateral ovarian metastasis of a Klatskin tumor: A rare case. Turk J Obstet Gynecol [Internet]. 2016 Dec [cited 2022 Aug 7];13(4):215–7. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5558296/
- 3. Kurt S, Ulukuş Ç, Kazaz SN, Astarcıoğlu İ. Bilateral ovarian metastasis of a Klatskin tumor: A rare case. Turk J Obstet Gynecol. 2016 Dec;13(4):215–7.
- 4. Umezaki N, Hashimoto D, Yamashita YI, Nakagawa S, Nakao Y, Itoyama R, et al. Neuroendocrine Tumor of the Hilar Bile Duct. Anticancer Res. 2019 Feb;39(2):903–7.
- 5. Alimoradi M, El-Helou E, Sabra H, Hani P, Wakim R. A non-klatskin tumor: A case report and review of intrabiliary hydatid cyst rupture. Int J Surg Case Rep. 2020;77:260–3.
- 6. Shingina A, Owen D, Zwirewich C, Salh B. Autoimmune cholangitis mimicking a klatskin tumor: a case report. J Med Case Reports [Internet]. 2011 Sep 28 [cited 2022 Aug 7];5(1):485. Available from: https://doi.org/10.1186/1752-1947-5-485
- 7. Varda B, Aslam S, Ansari Z, Patel M. Immunoglobulin G4 Cholangiopathy Masquerading as a Klatskin Tumor: An Interesting Case. Cureus [Internet]. [cited 2022 Aug 7];13(8):e17624. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8484694/
- 8. Lu BJ, Cao XD, Yuan N, Liu NN, Azami NL, Sun MY. Concomitant adenosquamous carcinoma and cystadenocarcinoma of the extrahepatic bile duct: A case report. World J Clin Cases [Internet]. 2019 Jan 26 [cited 2022 Aug 7];7(2):215–20. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6354090/
- 9. Melenhorst MCAM, Scheffer HJ, Vroomen LGPH, Kazemier G, van den Tol MP, Meijerink MR. Percutaneous Irreversible Electroporation of Unresectable Hilar Cholangiocarcinoma (Klatskin Tumor): A Case Report. Cardiovasc Intervent Radiol [Internet]. 2016 [cited 2022 Aug 7];39:117–21. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4689746/
- 10. Dahane, Arya. "Myasthenia Gravis." Bioscience Biotechnology Research Communications 14, no. 6 (June 15, 2021): 52–54. https://doi.org/10.21786/bbrc/14.6.12.
- 11. Dahane, Trupti M., Rupali Mukesh Patel, Surekha Godbole Dubey, and Kashish Mangal. "Awareness & Knowledge of Maxillofacial Prosthodontics as a Dental Specialty amongst Medical Practitioners." Journal of Evolution of Medical and Dental Sciences 10, no. 9 (March 1, 2021): 608–12. https://doi.org/10.14260/jemds/2021/131.
- 12. Dahiwele, Akshay, Shailesh Patil, Sarju Zilate, Harsh Salankar, and Sonali Rode. "Effective Response to DPP-4 Inhibitors in Patients of COVID 19 Triggered Uncontrolled Type 2 DM A Case Report." Journal of Pharmaceutical Research International, December 13, 2021, 34–38. https://doi.org/10.9734/jpri/2021/v33i55A33803.
- 13. Daigavane, Sachin, Madhumita Prasad, Sana Beg, and Jigna Motwani. "Invasive Aspergillosis of Right Maxillary Sinus with Orbital Extension in an Immunocompetent Individual." JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH, 2021. https://doi.org/10.7860/JCDR/2021/47244.14718.
- 14. Daigavane, Sachin Vishwanath, and Abhishek G.U. "Total Ophthalmoplegia as a Presenting Feature in Nasopharyngeal Carcinoma A Case Report." Journal of Evolution of Medical and Dental Sciences 10, no. 4 (January 25, 2021): 236–39. https://doi.org/10.14260/jemds/2021/51.
- 15. Dakhode, Sarika, and Abhay Gaidhane. "Effectiveness of Water, Sanitation and Hygiene (WASH) Intervention for School Going Children on Hygiene Practices, Absenteeism, Diarrhea, and Respiratory Infection: An Interventional Study Protocol." Journal of Pharmaceutical Research International, December 9, 2021, 77–87. https://doi.org/10.9734/jpri/2021/v33i54A33721.
- 16. Dangore Khasbage, Suwarna, Dhanashri R. Tijare, Monika Khubchandani, and Surbhi Juneja. "Comparative Evaluation of Efficacy of Jasminum Grandiflorum with Honey and Corticosteroids in Management of Recurrent Aphthous Stomatitis- A Study Protocol." Journal of Pharmaceutical Research International, November 11, 2021, 259–63. https://doi.org/10.9734/jpri/2021/v33i49A33328.
- 17. Darware, Madhura. "Physiotherapy Rehabilitation of Post-Hysterectomy Geriatric Patient: A Case Report." Bioscience Biotechnology Research Communications 14, no. 6 (June 15, 2021): 71–76. https://doi.org/10.21786/bbrc/14.6.17.
- 18. Das, Anupam, Anand Toshniwal, and Bhushan Madke. "Newer Signs in Dermatology [2016-2020]." Indian Dermatology Online Journal 12, no. 2 (2021): 342. https://doi.org/10.4103/idoj.IDOJ_214_20.
- 19. Das, Anupam, Anand Toshniwal, and Bhushan Madke. "What Is New in Dermatotherapy?" Indian Journal of Dermatology, Venereology and Leprology 87 (February 5, 2021): 135–43. https://doi.org/10.25259/IJDVL 342 20.

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- 20. Dasoju, Vedasri, Rakesh Krishna Kovela, Jaya Shanker Tedla, Devika Rani Sangadala, and Ravi Shankar Reddy. "Author Correction: Psychometric Properties of Trunk Impairment Scale in Children with Spastic Diplegia." Scientific Reports 11, no. 1 (December 2021): 20318. https://doi.org/10.1038/s41598-021-99453-z.
- 21. Dasoju, Vedasri, Rakesh Krishna Kovela, Jaya Shanker Tedla, Devika Rani Sangadala, and Ravi Shankar Reddy. "Psychometric Properties of Trunk Impairment Scale in Children with Spastic Diplegia." Scientific Reports 11, no. 1 (December 2021): 18529. https://doi.org/10.1038/s41598-021-98104-7.
- 22. David, PascalineJohn, Meenakshi Yeola, and Ruchira Ankar. "Efficacy of Nursing Skin Care Protocol on Prevention of Skin Related Problems among Newly Diagnosed Diabetic Patients." Journal of Pharmaceutical Research International, June 8, 2021, 1–8. https://doi.org/10.9734/jpri/2021/v33i31A31658.
- 23. Davkare, Manisha Vaman, and Sourabh Deshmukh. "Comparative Study on Efficacy of Murvadya Churna with Lauha Bhasma and Navayas Churna in Pandu Roga (Iron Deficiency Anemia)." Journal of Pharmaceutical Research International, August 3, 2021, 265–72. https://doi.org/10.9734/jpri/2021/v33i39B32203.
- 24. Dawood, Fatimah S, Wanitchaya Kittikraisak, Archana Patel, Danielle Rentz Hunt, Piyarat Suntarattiwong, Meredith G Wesley, Mark G Thompson, et al. "Incidence of Influenza during Pregnancy and Association with Pregnancy and Perinatal Outcomes in Three Middle-Income Countries: A Multisite Prospective Longitudinal Cohort Study." The Lancet Infectious Diseases 21, no. 1 (January 2021): 97–106. https://doi.org/10.1016/S1473-3099(20)30592-2.
- 25. Dehane, Mayuri A., Darshana Shingode, and Manoj Patil. "Report on Steroid- Responsive Encephalopathy in a Case of Hashimoto's Thyroiditis." Journal of Pharmaceutical Research International, June 30, 2021, 1–6. https://doi.org/10.9734/jpri/2021/v33i34A31816.
- 26. Deodhar, Neha. "3D Bioprinting: Printing To Biomedical Applicat." Bioscience Biotechnology Research Communications 14, no. 6 (June 15, 2021): 293–97. https://doi.org/10.21786/bbrc/14.6.62.
- 27. Deshmukh, Mansi, Priyanka Telang, and Rupali Thorat. "Lumbar Stenosis with Necrosis of Foot a Diagnostic Approach." Journal of Pharmaceutical Research International, December 17, 2021, 140–46. https://doi.org/10.9734/jpri/2021/v33i59B34362.
- 28. Deshmukh, Mitushi, and Neha Chitale. "Effect of Pulsed Electro-Magnetic Field (PEMF) Therapy and Conventional Physiotherapy on Lipid Profile- A Randomised Control Trial." Journal of Pharmaceutical Research International, December 16, 2021, 536–40. https://doi.org/10.9734/jpri/2021/v33i58B34234.
- 29. Deshmukh, Nikita S., Vaidehi V. Kannao, Pratik Phansopkar, and Om C. Wadhokar. "Impact of Physical Therapy on a Patient with Bell's Palsy: A Case Report." Journal of Pharmaceutical Research International, June 29, 2021, 97–102. https://doi.org/10.9734/jpri/2021/v33i33B31800.