SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://www.saspublishers.com

OPEN ACCESS

Visceral Surgery

Angiomas of the Liver Compressing the Bile Duct: A Rare Cause of Obstructive Cholestasis

Bahi Achraf[1*], Fadili M. Aziz[1], Zouhry Ibrahim[1], Hamada Abdelilah[1], Halim El Mustapha[1], Ait Ali Abdelmounaim[1]

[1]Department of Visceral Surgery, HMIMV, Rabat, Morocco

DOI: https://doi.org/10.36347/sasjs.2024.v10i12.008 | **Received:** 08.11.2024 | **Accepted:** 13.12.2024 | **Published:** 17.12.2024

***Corresponding author:** Bahi Achraf
Department of Visceral Surgery, HMIMV, Rabat, Morocco

Abstract **Case Report**

Hepatic angiomas, the most common benign tumors of the liver, are generally asymptomatic. However, their location or size can lead to rare complications such as bile duct compression. We report the case of a 35-year-old woman presenting with cholestatic jaundice secondary to a compressive hepatic angioma. The diagnosis was confirmed by magnetic resonance imaging. This case highlights the diagnostic and therapeutic challenges associated with this rare pathology and underscores the importance of multidisciplinary management.

Keywords: Angiomas, Cholestasis, Sphincterotomy, Prosthesis.

INTRODUCTION

Hepatic angiomas are the most common benign tumors of the liver, with a prevalence of up to 20% in the general population [1]. In most cases, they remain asymptomatic and are discovered incidentally during imaging examinations. However, some large angiomas or those located near biliary structures may cause symptoms due to their compressive effect [2,3]. Compression of the bile ducts by a hepatic angioma, although rare, is a clinically significant entity. It can mimic malignant or lithiasic pathologies, thus delaying diagnosis and treatment. We report here a rare case of a segment IV hepatic angioma causing obstructive cholestasis, detailing clinical, diagnostic, and therapeutic aspects.

OBSERVATION

This is a case of a 35-year-old woman with a history of appendectomy, cholecystectomy, and acute angiocholitis due to Mirizzi syndrome treated with prosthesis placement. The patient consulted for intermittent epigastric pain persisting for 5 months, associated with postprandial vomiting and cholestatic jaundice in the context of a 10 kg weight loss over one year. Clinical examination revealed a jaundiced patient with moderate tenderness upon palpation of the epigastrium and no hepatomegaly. The rest of the examination was unremarkable. A biological assessment revealed liver dysfunction with: ALAT: 186 UI/L; ASAT: 80 UI/L; total bilirubin: 43 µmol/L (predominantly direct); alkaline phosphatases: 307 UI/L; CRP: 188 mg/L; and white blood cell count: 19,100/mm³. The assessment was completed by magnetic resonance imaging which showed hepatic angiomas in segments IV and VI. The segment IV angioma was large and compressive, leading to dilation of the left intrahepatic bile ducts. Our patient underwent sphincterotomy with placement of a plastic prosthesis. The outcome was favorable with clinical and biological improvement.

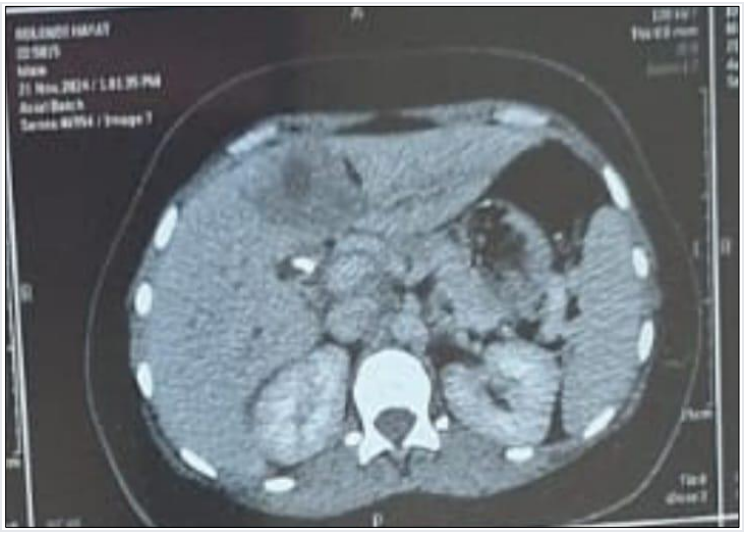

Figure 1: image showing a hemangioma of segment VI

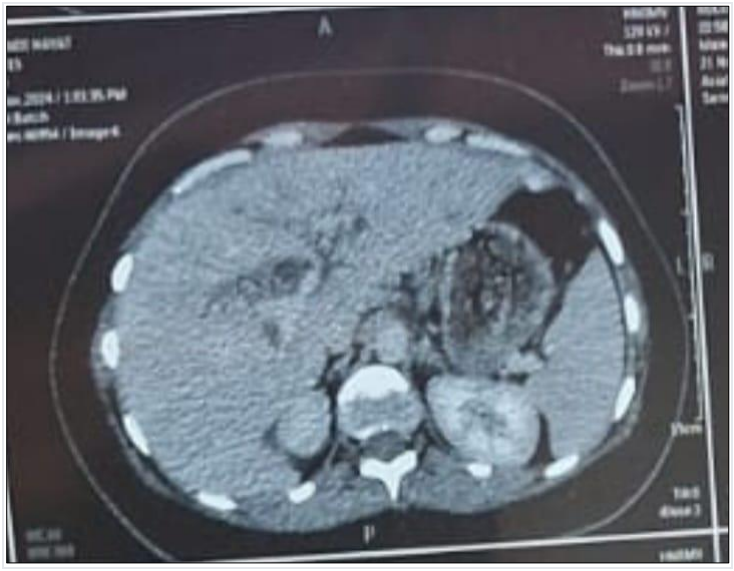

Figure 2: image showing intrahepatic bile duct dilation

DISCUSSION

Hepatic angiomas are benign vascular tumors composed of vascular cavities lined by endothelium. Their size varies from a few millimeters to over 10 cm in cases of "giant hemangioma" [1]. When they become large and localize near major biliary structures, they can exert mechanical pressure leading to partial or complete obstruction of intra- or extrahepatic bile ducts. Diagnosis primarily relies on medical imaging which allows for accurate identification while avoiding biopsies that are often risky due to the hemorrhagic potential of these lesions. Ultrasound is generally the first examination performed; angiomas appear as homogeneous hyperechoic lesions. However, magnetic resonance imaging is the reference examination for confirming their benign nature due to detailed characterization of vascular enhancements after gadolinium injection. Imaging also helps differentiate angiomas from other liver lesions. The main differential diagnoses include cholangiocarcinoma, hepatic metastases, and biliary cysts [2-5]. In our case, the large segment IV angioma was responsible for marked compression of the left intrahepatic bile ducts exacerbating obstructive cholestasis. Angiomas located in segment IV are particularly problematic due to their proximity to major biliary structures like the hepatic hilum. Biliary compression by angiomas can also lead to secondary complications such as episodes of angiocholitis or hydroscholic cystitis as observed in this patient. Management of compressive hepatic angiomas must be tailored to the clinical context, lesion size, and associated complications. It aims to relieve symptoms, prevent complications, and preserve liver function. Most hepatic angiomas remain asymptomatic and do not require specific treatment; thus a conservative approach is recommended in such cases [6]. When an angioma causes significant bile duct obstruction as in our case, temporary diversion may be considered through biliary prosthesis placement to relieve cholestasis and associated symptoms. This approach led to immediate

improvement in jaundice and cholestatic symptoms in our patient [7]. In cases where conservative treatment fails or if there are contraindications for surgery, targeted interventional techniques may be considered such as selective arterial embolization indicated if the angioma is large (>10 cm) causing bile duct compression or refractory pain. This embolization has the advantage of being minimally invasive and allows for significant symptom reduction in 70-90% of cases [8, 9]. Surgical resection is indicated for large angiomas causing severe compression of bile ducts or adjacent structures and in cases where malignancy is suspected despite imaging or recurrent complications such as angiocholitis or hydroscholic cystitis [11, 12].

CONCLUSION

This case highlights a rare but significant complication of hepatic angiomas: bile duct compression. It underscores the importance of rigorous differential diagnosis primarily based on imaging and appropriate management to avoid serious complications. Regular follow-up and multidisciplinary management are essential for optimizing prognosis.

REFERENCES

1. Gupta, S. (2019). "Hepatic hemangiomas: Review of the literature and case report." *Radiology Case Reports*, *14*(9), 1084-1089.
2. Caseiro-Alves, F. (2007). "Hepatic hemangioma revisited: The role of imaging." *European Radiology*, *17*(7), 1544-1556.
3. Choi, B. Y., & Nguyen, M. H. (2005). The diagnosis and management of benign hepatic tumors. *Journal of clinical gastroenterology*, *39*(5), 401-412.
4. Lal, N. (2018). "Hepatic hemangiomas causing biliary obstruction: A case report." *International Journal of Surgery Case Reports*, *53*, 343-346.
5. Yoon, S. S. (2003). "Management of symptomatic hepatic hemangiomas." *Journal of the American College of Surgeons*, *197*(5), 726-731.
6. Cuenod, C. A. (2010). "Hepatic hemangiomas: Management of complicated cases." *Surgical Clinics of North America*, *90*(4), 693-716.
7. Kaspar, M. (2020). "Hepatic hemangioma: When to intervene?" *Annals of Hepatology*, *19*(6), 685-690.
8. Levi Sandri, G. B. (2020). "Embolization for the management of hepatic hemangiomas: A review of the literature." *World Journal of Hepatology*, *12*(5), 225-234.
9. Taneja, S. (2017). "Transarterial embolization in symptomatic hepatic hemangiomas: A single-center experience." *Journal of Clinical Imaging Science*, *7*(4).
10. Terkivatan, T. (2001). "Symptomatic giant hepatic hemangiomas: Management and outcome." *Annals of Surgery*, *234*(1), 49-54.
11. Hoekstra, L. T. (2013). "Management of giant liver hemangiomas: An update." *Expert Review of Gastroenterology & Hepatology*, *7*(3), 263-268.
12. Pawlik, T. M. (2009). "Management of hepatic hemangioma: A review." *HPB Surgery*, 1-9.