Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Gastroenterology

Focal Nodular Hyperplasia FNH: A Case Report

Chakir Alae[1*], R. N. Tonguino[1], I. Elkouti[1], H. Yousfi[1], T. Lamsiah[1]

[1]Gastroenterology I Department at the Moulay Ismail Military Hospital- Meknes, Morocco

DOI: 10.36347/sjmcr.2022.v10i12.027 | **Received:** 22.11.2022 | **Accepted:** 26.12.2022 | **Published:** 28.12.2022

***Corresponding author:** Chakir Alae
Gastroenterology I Department at the Moulay Ismail Military Hospital- Meknes, Morocco

Abstract **Case Report**

FNH is a well-differentiated hepatocyte proliferation without portal spaces or bile ducts [1], which is responsible for a benign hepatic tumor whose prevalence is rare in the general population. There is no risk of malignant transformation because these are polyclonal lesions of a reactive nature [2]. The diagnosis is essentially based on radiology (MRI), and does not require monitoring or treatment in most cases. We report here the case of a patient in whom we made the diagnosis of this benign tumor by an MRI performed in the context of a hepatic mass not individualized by an abdominal ultrasound.

Keywords: Focal nodular hyperplasia; Magnetic resonance imaging (MRI).

INTRODUCTION

Focal nodular hyperplasia is a rare benign liver tumor. It's represents less than 2% of liver tumors [3].

The diagnosis is essentially based on radiology (MRI), and does not require monitoring or treatment in most cases; surgery is reserved for large and/or symptomatic tumors [4].

Our patient is a 35-year-old woman diagnosed with FNH on magnetic resonance imaging. Recourse to a biopsy was not necessary.

OBSERVATION

A 36-year-old woman, with no medical history, with taking oral contraception based on estrogen minidose, consulted for diffuse abdominal pain with weight loss. The clinical examination was normal. The standard biological assessment did not revealed any anomalies. An abdominal ultrasound visualized a hepatic mass, then a CT scan was performed for better characterization concluding a segment IV mass compatible with a focal nodular hyperplasia (FNH). Hepatic MRI was also requested, characterizing a typical mass of a discretely hyperintense FNH on T2, hypointense on T1. This lesion presented a marked and early enhancement in the arterial phase, then a homogenization, later (wash out). A central scar was also observed with a maximum length of 34 mm (figure 1).

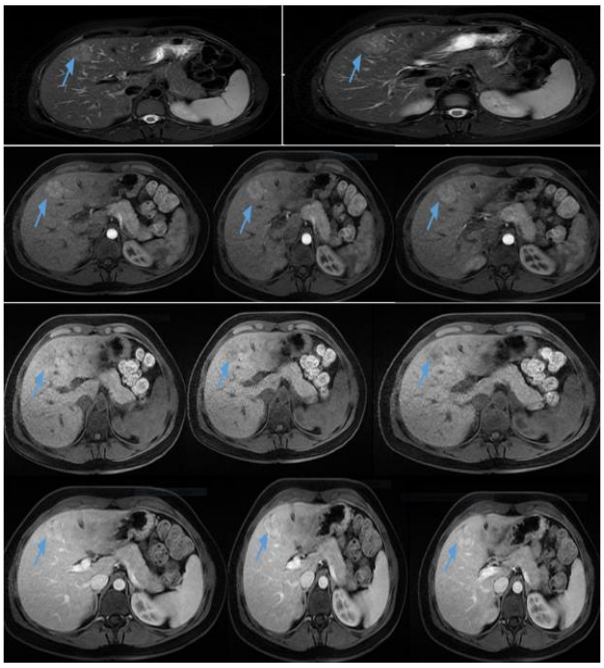

Figure 1: HNF in RMI

DISCUSSION

FNH is a benign hepatocyte proliferation, its prevalence is about 0.03%, common in women between 35 and 50 years old, with a female/male ratio of 8/1 [5]. Oral contraception and pregnancy do not play a role in the development and progression of FNH [6].

When it presents a typical appearance on imaging, it does not require a biopsy, and no treatment or follow-up is recommended [7]. MRI is the examination of choice for the diagnosis of FNH. The lesion is iso- or hypointense on T1 and often isointense on T2. The central scar appears in discrete T2 hypersignal. After injection, intense enhancement is observed in the arterial phase, followed by equalization with the signal from the hepatic parenchyma. It differentiates FNH from all hepatocyte lesions and in particular from most hepatic adenomas [8, 9].

CONCLUSION

Silent FNH less than 4 cm in diameter can simply be observed and monitored by Imaging studies. Surgical excision is reserved for large, symptomatic or complicated lesions.

REFERENCES

1. Bioulac-Sage, P., Rebouissou, S., & Thomas, C. (2007). Hepatocellular adenoma subtype classification using molecular markers and immunohistochemistry. *Hepatology,* 46, 740–8.
2. Paradis, V., Bieche, I., & Dargere, D. (2003). A quantitative gene expression study suggests a role for angiopoietins in focal nodular hyperplasia. *Gastroenterology,* 124, 651–9.
3. Aboughalia, K.M., & Chisholm Iyer, R. S. (2021). Focal nodular hyperplasia masquerading as malignancy in an infant with elevated alpha-fetoprotein: a case report with literature review. *Clin Imag,* 69, 228-232.
4. Zarfati, A., Chambers, G., Pio, L., Guérin, F., Fouquet, V., … & Franchi-Abella, S. (2020). Prise en charge de l'hyperplasie nodulaire focale du foie : expérience de 50 patients pédiatriques dans un centre tertiaire. *J Pediatr Surg*, 55(9), 1885–1891.
5. Mathieu, D., Kobeiter, H., Maison, P., Rahmouni, A., Cherqui, D., Zafrani, E. S., & Dhumeaux, D. (2000). Oral contraceptive use and focal nodular hyperplasia of the liver. *Gastroenterology*, *118*(3), 560-564.
6. Rifai, K., Mix, H., & Krusche, S. (2013). No evidence of substantial growth progression or complications of large focal nodular hyperplasia during pregnancy. *Scand J Gastroenterol,* 48, 88–92.
7. European Association for the Study of the Liver. (2016). EASL Clinical Practice Guidelines on the management of benign liver tumours. *Journal of hepatology*, *65*(2), 386-398.
8. Ronot, M., & Vilgrain, V. (2014). Imaging of benign hepatocellular lesions: current concepts and recent updates. *Clinics and research in hepatology and gastroenterology*, *38*(6), 681-688.
9. McInnes, M. D., Hibbert, R. M., Inacio, J. R., & Schieda, N. (2015). Focal nodular hyperplasia and hepatocellular adenoma: accuracy of gadoxetic acid–enhanced MR imaging—a systematic review. *Radiology*, *277*(2), 413-423.