

Eosinophilic Hepatitis an Unfrequently Case of Hepatotoxicity Due To Drugs

Bercich L, Lechiara M^{2*}, Manenti S and Villanacci V¹

¹Institute of Pathology, Spedali Civili, Brescia, Italy

²Institute of Radiology, Spedali Civili, Brescia, Italy

Received: 01 May 2020

Accepted: 23 May 2020

Published: 26 May 2020

***Corresponding author:**

Vincenzo Villanacci, Institute of Pathology, Spedali Civili, Brescia, Italy, Tel: 0039 3397792 335, E-mail: villanac@alice.it

1. Abstract

An interesting case of eosinophilic hepatitis related to an antitumor drug Imatinib. The histologic pictures are very rare and very interesting also for the disappearance of the lesion after removing the drug.

2. Clinical Image

In 2011, a sixty years old woman underwent an ileal resection for gastrointestinal stromal tumor (GIST) with high biological risk, followed by therapy with the selective tyrosine kinase inhibitor Imatinib (GLIVEC) (not known the duration and dose). During follow-up, in 2018 an abdominal RM revealed three hepatic nodules in different segments, the major of 15 mm, suspicious for metastatic disease (Figure 1).

Two percutaneous liver biopsies were performed showing histologically features of an eosinophilic hepatitis characterized by a high number of eosinophils (>40 for HPF) (Figure 2), bile duct damage without bile duct vanishing. No evidence of metastatic disease. Neither peripheral eosinophilia nor autoimmune/viral antibodies were identified or liver enzyme alteration.

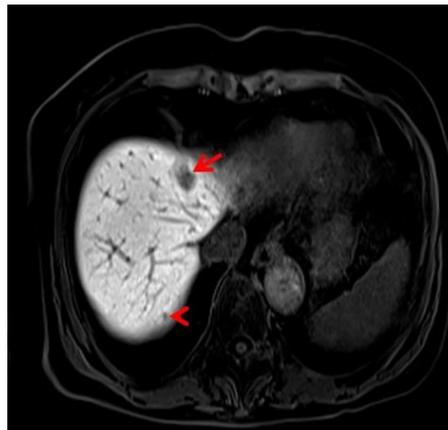


Figure 1: IV hepatic segment nodule, 15 mm (arrow), biopsied and VII hepatic nodule (arrow head). Not showed the third V segment nodule.

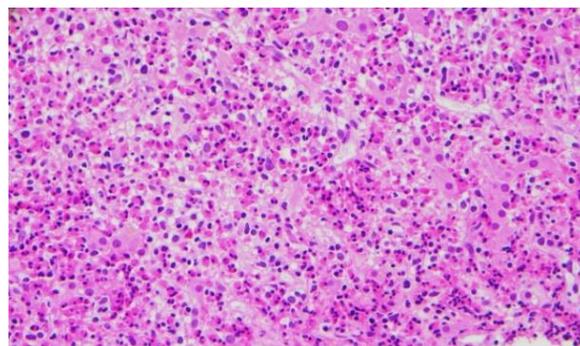


Figure 2: Diffuse infiltration of eosinophils in liver parenchima (H&E x 40).

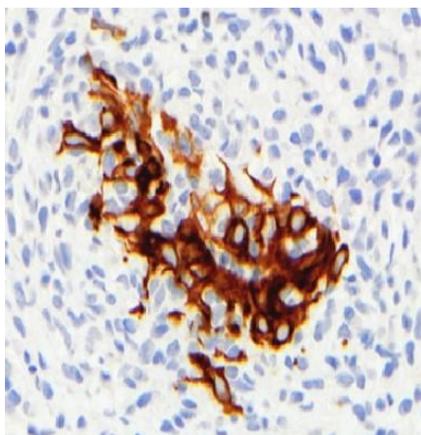


Figure 3: Bile duct damage (keratin7 x 20) .

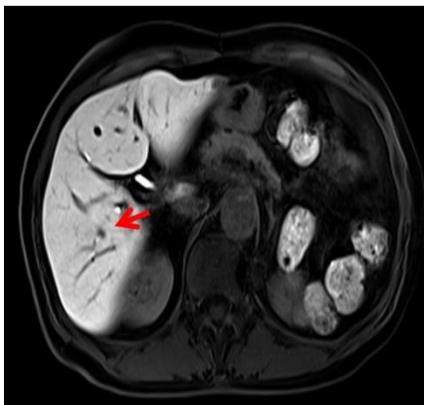


Figure 4: V hepatic segment nodule, (arrow) never biopsied.

After histological diagnosis, for the possible relationship between eosinophils as expression of drug damage the therapy with Imatinib was stopped. The radiological findings performed after six months revealed disappearance of two of three liver nodules.

This case underlies the possibility of hepatotoxicity drug induced. To say it, is essential to make the following considerations:

- A strict clinical and therapeutic correlation is to be done.
- The hepatic involvement appears some years after therapeutic starting (the drug liver toxicity occurs in a shorter time, i.e in the first months) [1].
- According with the clinical data nor elevation in serum aminotransferase levels or serum bilirubin occurred (present in a good number of the cases) [2].
- The radiological nodular presentation is rarely reported [3] even in other neoplastic disease, therefore this event has to be considered as a possible not excludable clinical presentation.
- Other intervening diseases are to be considered and excluded (for example viral/autoimmune, more recent drug taking other than Imatinib, hypereosinophilic syndrome)
- Liver radiology monitoring after discontinuation of the drug is strongly recommended [4].

This case, unusual, shows radiologically the appearance of nodules and morphologically the histology of an EH. The suspension of the drug with the clinical improvement in association with the disappearance of the hepatic nodules confirmed eosinophils as hallmark of drug damage.

References

1. Lee JJ, Rosenberg H.F: Eosinophils in Health and Disease 2012, Elsevier Academic Press
2. Haq MI, Nixon J, Stanley AJ. Imatinib and liver toxicity. *BMJ Case Rep.* 2018; 11.
3. Ceulemans G, Ilsen B, Verdries D, de Mey J, Everaert H. Focal eosinophilic hepatitis simulating a solitary metastatic lesion on FDG-PET/CT in a patient with history of head and neck cancer. *JBR-BTR.* 2011; 94: 94.
4. Shah JM, Lin K, Etienne D, Reddy M, Liu Y. Imatinib-induced Hepatitis in a Patient Treated for Gastrointestinal Stromal Tumor: A Rare Adverse Effect. *Cureus.* 2018; 10: e2529.