

HEPATITE CHRONIQUE : L'HISTOLOGIE A L'HEURE DU FIBROTEST ET DU FIBROSCAN CHRONIC HEPATITIS : HISTOLOGY, FIBROTEST AND FIBROSCAN

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Fibrosis, with its major complication cirrhosis, are the major deleterious lesions in liver chronic diseases, wherever the etiology. The recent development of non invasive procedures that allow to indirectly assessing the fibrosis stage has recently raised questions about the role of liver biopsy in the management of patients with chronic hepatitis. Until now, liver histology has been the standard of reference and most entities in the field of hepatology are defined based on anatomic criteria such as chronic hepatitis, fibrosis, cirrhosis, steatosis... However the risk and drawbacks of liver biopsy, which have been put forward in recent publications, might limit its use and push forward the development of non invasive markers although the association of chronic liver diseases with clinical biological or imaging signs is loose.

Biopsy is an invasive procedure with several but common adverse effects (transient pain, malaise) and limited risk of major complications such as hemorrhage, peritonitis and even fatal outcome fortunately very rare (1/10.000). In addition, there is a risk of sampling error in biopsy interpretation since liver biopsy provides only a limited part (1/50.000 – 1/100.000) of the whole liver and some lesions such as fibrosis are not very homogeneously distributed throughout the organ. Finally there is also a possible risk of interobserver variation between pathologists which, in fact, is very low when experimented pathologists and well-defined semiquantitative scores are used. These arguments support the development of non invasive alternative procedures to the biopsy. These methods would ideally produce a global and detailed evaluation of the liver lesions. Such approaches have been developed mainly for fibrosis assessment using combination of blood parameters (Fibrotest and others) or ultrasonographic evaluation of liver elasticity (Fibroscan). After several years of development it clearly appears that these methods should be considered by hepatologists in their armamentarium when investigating patients with chronic liver diseases. Several studies have convincingly shown that these methods perform reasonably well when differentiation between mild fibrosis (F0-1-2) and severe fibrosis (F3-4) is concerned.

However, it remains that histology and liver biopsy still have a major role in the context of chronic hepatitis. The main reasons are the following:

- Fibrosis assessment deserves an accurate evaluation: METAVIR scoring system recognizes 5 scores whether Ishak scoring system identifies 7. This accuracy is adapted to a liver biopsy of sufficient size (2cm length) and much more accurate than any of other non invasive evaluation that have only been validated for the distinction between “non-significant” and “clinically significant” fibrosis. Such accuracy is needed when treatment decision is concerned (F1 vs F2), when deciding for follow-up procedures (F3 vs F4) or for prognostication. Of major importance is also the fact that scoring systems in liver biopsy are not limited to assessing amount of fibrosis. These scores take also in consideration architectural changes and vascular remodeling, lesions that cannot be assessed with any of the non-invasive procedures.

- Associated lesions: histology provides much more than fibrosis amount or semiquantitative score of fibrosis. In many instances, other histological lesions that were not brought up on the clinical context are discovered on the biopsy. Steatosis is common in chronic hepatitis C and might have a role in treatment efficacy. Amount of steatosis, lobular distribution and association with inflammation are of significant importance to distinguish lesions directly related to virus and those related with metabolic syndrome often associated with hepatitis C. For this discussion, the information provided by the biopsy are decisional. Necroinflammatory lesions (activity grade) are also histopathologic lesions that need an accurate assessment both for diagnosis, prognosis and therapeutic considerations. Although non invasive tests have been developed to evaluate activity, they have been not so widely validated. In some instances, liver biopsy allows also detecting lesions that were not anticipated on clinical grounds such as iron overload or signs suggestive of associated autoimmunity (plasma cell infiltrate, central necrosis).

- Comorbidity : When comorbidity is clinically present such as coinfection, alcohol intake, obesity, metabolic syndrom, then biopsy become mandatory in order to decide for the most adapted treatment.

In conclusion, several non invasive tests have been recently developed that perform reasonably well to detect significant fibrosis. They should be incorporated in the tools useful for investigation of patients with chronic hepatitis. However, it must be beared in mind that they are only indirect markers of only one of the many informations that a biopsy can provide. In the context of chronic hepatitis, a disease that can have serious complications and that require an heavy and long-term treatment with several side effects, a complete and accurate assessment of histopathological lesions should be systematically considered. Bypassing the biopsy should have deleterious consequences for the patient.

References:

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