LIVER BIOPSY PRACTICE IN THE ERA OF EOSINOPHILIC OESOPHAGITIS – INDICATIONS, QUALITY AND OUTCOMES

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Introduction Widespread availability of serum biomarkers of fibrosis, transient elastography (FibroScan™) and non-invasive based diagnostic guidelines have reduced the requirement for liver biopsy. As the indications for biopsy potentially contract, their interpretation may become more complex and the need for consistent, adequate sampling even more important. Furthermore, morbidity and mortality may alter as patient characteristics change. We aimed to assess indications, sampling techniques, quality of samples, complications, histopathological diagnosis and outcomes of liver biopsies in a large tertiary hepatology centre.

Methods Anonymised data relating to all non-lesional liver biopsies requested by hepatologists and performed at Guy’s and St Thomas’ hospital from January 2019 to December 2020 were collected. Indications, procedure, needle type, complications, histopathological reports (including noting the quality/adequacy of the sample) and final diagnosis were reviewed and analysed. All biopsies were performed by interventional radiologists and analysed at Kings College Hospital Institute of Liver Studies.

Results 125 biopsies were identified. Indications included inconclusive FibroScan™ values (n=51), abnormal imaging (n=10), uncertainty in aetiology (n=50) and miscellaneous reasons (e.g. sarcoid, Wilson’s haemochromatosis etc. n=12). There was no available clinical information in 2. Percutaneous (PC) route was used in 119 cases and transjugular (TJ) in 6. Six needle types were used for the PC route and 4 types were used for TJ. 84.8% (n=106) of samples were adequate, 12% (n=15) were of poor quality and 3.2% (n=4) were inadequate for histological diagnosis. Diagnostic certainty was declared by the histopathologist in 89% (n=112). 32.5% had evidence of sample fragmentation. 91% (n=114) of samples contained adequate numbers of portal tracts for diagnosis. Main diagnosis included non-alcoholic liver disease, autoimmune hepatitis, drug induced liver disease and viral hepatitis. Fibrosis stage was F0 (N=21), F1 (n=33), F2 (n=30), F3 (n=27), F4 (n=10) and inconclusive in 4. 3.2% (n=4) of the patients had significant post procedure pain, Three were discharged following 4 hrs observation and one required admission. There were no instances of haemorrhage or pneumothorax.

Conclusions Liver biopsy remains an important tool in clinical assessment. In this cohort, a variety of needles were used, suggesting individual preferences among operators. Sample quality was satisfactory, though in a minority adequate tissue was not obtained. We noted that repeat biopsies were not requested, suggesting clinicians were able to progress their patients’ management. Despite elastography, patients with minimal fibrosis and cirrhosis are still biopsied. Patients should be aware that significant pain may occur in around 3%. Further investigation into the potential benefits of needle standardisation, patient reported measures of pain and the influence of biopsy on patient management and outcome is justified.

Abstract PTH-63 Table 1

| Median age at diagnosis (years[SD]) | 38[14.32] |
| Male (n/N[%]) | 26/40(65.0%) |

Ethnicity

- White 20/40(50.0%)
- Mixed-White & Asian 2/40(5.0%)
- Mixed-White & Caribbean 1/40(2.5%)
- Asian 1/40(2.5%)
- Afro-Caribbean 1/40(2.5%)
- N/A 15/40(34.4%)

Atopy (n/N[%])

- Asthma 9/40(22.5%)
- Hay fever 5/40(12.5%)
- Eczema 5/40(12.5%)

Symptoms at index presentation

- Dysphagia 36/40(90.0%)
- Food bolus obstruction 19/40(47.5%)
- Reflux 13/40(32.5%)
- Chest pain 12/32(37.5%)
- Vomiting 11/32(34.4%)
- Odynophagia 7/40(17.5%)
- Weight loss 3/40(7.5%)