More than 400 million people are chronically infected with the hepatitis B and C viruses (HBV and HCV). Both viruses are the leading cause of chronic liver disease (CLD) at our centre in Zaria and are also responsible for more than 300,000 cases of liver cancer annually globally. These viruses are implicated in cases of gastrointestinal haemorrhages and ascites in most centres worldwide. Of the 5 – 10% of adults who are chronic carriers of HBV, 25% will progress to liver cirrhosis and hepatocellular carcinoma. In Nigeria, chronic carrier rates of HBV among the general population range from 10% in Zaria, 15% in Benin, 25% in Ibadan and 36% in Maiduguri.

At present, liver biopsy, an invasive procedure is considered the gold standard technique for the assessment of liver fibrosis but it has several limitations. An estimated 3 in 1000 cases may suffer some complications such as pain, bleeding, pneumothorax, bile peritonitis, septicemia and even death. Liver biopsy diagnosis is based on a sample that just represents 1/5000 of the liver parenchyma. Though it may be done in carefully selected patients, the result should be interpreted with caution.

This study was a 10 years retrospective analysis of patients diagnosed with CLD from January 2000 to December 2009 in the OPD of Ahmadu Bello University Teaching Hospital, Zaria, Nigeria. Patients’ case folders were retrieved. Clinical characteristics of age, gender, indication for the biopsy, duration of hospital stay and complications were extracted and analysed. The histopathology reports of the same cases were reviewed in the histopathology laboratory. The clinical characteristics of the patients that were extricated included the age, gender, hospital number, indication for the biopsy, duration of hospital stay and complications. Data analysis was done using Statistical Package for Social Sciences (SPSS) 11.5 version package. Values were reported as mean ± SD and frequencies with percentages.

Two hundred and seventy nine patients had liver biopsy in the study period. There were 188 males (67.4%) and 91 females (32.6%) with a male to female ratio of approximately 2:1. All procedures were done as day cases. The average hospital stay was 6.08 ± 0.52 hours, only one patient stayed for 12 hours post-procedure. The predominant indication was chronic viral hepatitis in 150 (53.8%) cases. Other indications were liver cirrhosis in 65 patients (23.3%), HCC in 43 patients (15.4%), PUO in 14 patients (5%), TB in 6 patients (2.2%) and post-liver transplant in 1 patient (0.4%) (Table I).

Two hundred and sixty cases (93.2%) were done without ultrasound guidance and 19 (6.8%) done with it. Nine of the blind procedural samples were not representative. The mean complication frequency was 3 ± 1. The diagnosis following liver biopsy is shown in Table II with complications of viral hepatitis such as liver cirrhosis, HCC and chronic hepatitis ranking highest amongst the others.

It is notable that no patient was described to have bled to the point of needing transfusion. This may be related to careful selection of patient for the procedure even if they met the biopsy criteria used by the centre. Pain emerged to be the predominant complication. Simple analgesia was found to be adequate in the pain management and no patient returned to the hospital or called the clinician because of pain after discharge. The observed 18 complications were noted in 8 out of...
the 10 years period with a mean of 3 ± 1. This again demonstrates the relative safety of the procedure as mentioned in the introduction.

The observed predominant indication of chronic viral hepatitis was due to the fact that the prevalence is very high, 17% in Zaria and 25 – 37% in Maiduguri. Most of the liver biopsies were done blindly with a few done under abdominal ultrasound guidance. This in part was due to the deficiency of a scanning machine and would have affected the results obtained as non-palpable lesions or lesions in the left lobe that may be localized by the machine that might have been missed on such a procedure.

The absence or non-validation of other non-invasive markers of hepatic fibrosis in most centres like our own such as fibrotest, transient hepatic elastography and APRI test may prolong the practise of liver biopsy.

It can, therefore, be concluded that liver biopsy is safe and well tolerated with minimal side effects. The practise of liver biopsy may be on the increase until newer methods of evaluating hepatic fibrosis becomes widely available. Directed biopsy should be encouraged to reduce the failure rates.

REFERENCES