

of fine-needle aspiration cytology in the management of liver disease in a district hospital

Shiramba, TL; Lodenyo, HA; Kabanga, JM; Kuria, JK

Abstract:

BACKGROUND: Fine needle aspiration (FNA) cytology is a cost effective technique of obtaining cellular specimens for diagnoses. It has many advantages over large needle core biopsies that makes it quite suitable for outpatient department and institutions without facilities for histopathology diagnosis. Any site of the body can be sampled with FNA technique. **OBJECTIVE:** To assess the diagnostic utility of fine needle aspiration cytology technique in management of patients with liver disease in resource limited settings. **DESIGN:** Prospective cross sectional study. **SETTING:** Patient evaluation and FNA aspiration were done in Murang'a and Machakos district hospitals and specimen staining and microscopy were done in Centre for Clinical Research, Kenya Medical Research Institute. **SUBJECTS:** Patients who were suspected to have liver disease were referred to the medical outpatient clinics in Murang'a and Machakos district hospitals for evaluation. In addition those on the medical wards in the two hospitals who were suspected to have liver disease were also evaluated. **INTERVENTIONS:** The patients with liver disease were identified after physical and abdominal ultrasound examination. Those with hepatomegaly were selected for the study. Liver fine needle aspiration was done using 21 gauge fine needle attached to a 10 ml syringe. Focal lesions were targeted as much as possible. Thin smears of specimens obtained were spread onto microscope slides which were then dropped into 95% ethanol and left for 30 min in order to fix the material. The slides were then removed, dried and transported to KEMRI where they were stained with Papanicolaou stain then evaluated on the light microscope. **RESULTS:** One hundred and twenty patients with suspected liver disease were evaluated in the two hospitals; 70 in Machakos and 50 in Murang'a. Fifty patients were identified to have liver disease and fine needle aspiration done aseptically. Twenty one (42%) of the 50 patients had malignant cells; 15(30%) of the 50 patients had necrotic material aspirates 2 (4%) showed fatty changes later showed to be liver cirrhosis; 11 (22%) showed normal hepatocytes. **CONCLUSION:** The results support the diagnostic utility of FNA cytology in the management of liver disease, especially in rural setting