Background Role of endoscopic ultrasound (EUS) guided fine needle aspiration (FNA) in patients with lymphadenopathy in term of diagnostic adequacy and safety in a large population is not well defined. The aim of the current study was to evaluate diagnostic adequacy and safety of EUS FNA in patients with lymphadenopathy.

Methods Retrospective study from October 2010 to September 2015 at a tertiary care centre in Delhi-NCR. We analysed data of 1005 EUS guided FNA of the lymph node.

Results The study cohort comprised 1005 lymph nodes in 865 patients; 68% were males, mean age was 50±14 years. Indications of FNA were to look for aetiology of pyrexia of unknown origin or staging of malignancy mainly. lymph node FNA was taken from mediastinal nodes (n=528, 52.5%) and intra-abdominal nodes (n=477, 47.5%). The median size of nodes at the long and short axis was 17 (12–25.7) and 10 (8–15) mm respectively. Adequate material by FNA was obtained in 92.8% cases. The cytopathologic diagnosis was malignancy in 153 (15.2%), granulomatous change in 452 (42%), and reactive lymphadenopathy in 328 (35.6%). There was statistically significant difference seen between groups with pathological and reactive lymph nodes regarding size at the long and short axis, all the echo-features of lymph nodes. Procedure related adverse effects were encountered in 6 patients (0.8%). Four patients had mild mucosal bleeding in chronic liver disease patients, and two had mild hepatic encephalopathy related to sedation.

Conclusions EUS FNA of lymph nodes has good diagnostic adequacy and safety.

**Butyrate Acid as a Potential Marker for the Diversity of Gut Microbiota in Colorectal Cancer Patients**

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Background The gut microbiota turns as an actual organism, and many changes of variety have been described in colorectal cancer patients (CRC). Butyrate is a part of short chain fatty acid which commonly produced by especially bacteria in the colon, and it was to use of their host. Several kinds of literature reported the role of butyrate as prevention or inhibition of carcinogenesis of intestinal. In addition, there is an opposite the link between butyrate acid’s level and the rate of frequency CRC patients. In this study, we evaluated the level of butyrate acid as diagnostic biomarkers for the diversity of gut microbiota in colorectal cancer patients.

Methods The study consists of fourteen subjects with CRC and 14 non-CRC were included in this case-control study. Stool samples were analysed for SCFA (acetate, propionate, and butyrate acids) with gas chromatography and the result is given as ug/mL. Especially, we determined various cut-off marks for butyrate acids in respect of indicating CRC for addition to the computation of both sensitivity and specificity.

Results We found that CRC patients had a lower level of acetate, propionate and butyrate acids than non-CRC. The mean concentration of acetate 8.55 ug/mL, propionate 5.61 ug/mL and butyrate acids 3.79 ug/mL respectively. In three of SCFA, the level of butyrate acids had the best diagnostic properties with area under receiver operating characteristic (ROC) curve of 0.84 higher than acetate (0.71) and propionate (0.75) (p<0.05). With a cut-off value for butyrate acids<5.4 ug/mL indicating CRC, the sensitivity, specificity, positive and negative likelihood ratio, and diagnostic odds ratio were 85%, 78%, 4.04, 0.18 and 22.2 respectively.

Conclusions In conclusion, our study is the first report demonstrating the level butyrate acids as useful biomarkers to detect the presence of CRC. Due to the small size of the sample and this design study is case-control, needs more require approval to confirm the result.