

## Role of Imprint Cytology in the Diagnosis of Upper Gastrointestinal Tract Lesions

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### Abstract

**Background:** Histological study of the upper gastrointestinal (GI) endoscopic biopsies provides an accurate diagnosis of the lesions occurring in these regions. But the limitation of histology is longer time required. Study of imprint smears of endoscopic biopsies enables an immediate report.

**Aim:** To compare the accuracy of endoscopic biopsy imprint cytology with histology in the diagnosis of upper gastrointestinal tract lesions.

**Materials and Method:** A total of 77 cases were studied over a period of two years. The endoscopic biopsy tissue was first taken on a clean glass slide and rolled gently with the help of a needle to make an imprint of the tissue on the slide. These imprint smears were immediately fixed with 95% alcohol and stained with H and E and PAP stain. After the imprint smears are made the same biopsy tissue was then put in 10% formalin for routine histopathological processing. Two separate staff studied the imprint smears and histopathology slides independently and later the findings were correlated.

**Results:** Biopsy histology results were found to be correct in 100% cases. Imprint cytology had an overall accuracy of 97.6%, 100% and 100% for the diagnosis of malignancies of the oesophagus, stomach and duodenum respectively. One false result was obtained in oesophageal lesions. The combined diagnostic accuracy of imprint cytology and histology for all upper GI lesions was 100%.

**Conclusion:** Imprint cytology can serve as a useful and simple tool for an immediate and accurate diagnosis of upper GI malignancies.