# Expectations from a new EUS services in an academic center: Our experience.

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#### **Abstract**

Increasing number of medical centers are employing EUS services in their practice. However, in view of uncertainty regarding the adequacy of patient-referral and cost-productiveness, most medical centers are generally skeptical about starting EUS services in their practice. We attempted to determine the trends in patient referral for EUS procedure after initiation of EUS services in the institution.

Methods: Data was collected on all the patients who underwent EUS during the first 6 months of starting EUS services. The number of patients who had EUS-FNA and/or subsequent referral to other medical services at our institution was recorded.

Results: A total of 181 EUS procedures were performed in the first 6 months of starting the EUS service. The number of referrals for EUS increased rapidly during the first 3 months and during the later 3 months an average of 45 procedures/month were performed. Forty-six percent of patients were subsequently referred to other medical services at our institution following the EUS.

Conclusion: Preliminary review of our data suggests that establishing EUS services in a medium-size town is highly feasible and cost-effective. EUS opened avenues for generating revenue for other medical services at our institution. Our study demonstrates EUS as a viable modality in the current practice of gastroenterology and supports its wider utilization.

#### Introduction

EUS has evolved from a solely imaging modality to an interventional tool with major impact on patient management. After many years of being limited to large academic centers, EUS is now practiced more widely. However, there are several factors which are taken into consideration before initiation of an innovative service at any medical institution. This includes cost of the equipment, financial incentives for the institution as well as expertise and cost-effectiveness of the procedure. EUS is an expensive instrument and the procedure itself is more time consuming than other standard endoscopic procedures. Most medical centers are generally hesitant about starting EUS services in their practice in view of uncertainty regarding the adequacy of expected patient referrals for the procedure. As a result, EUS is mostly confined to large centers. The aim of our study was to determine the trends in the patient referral for EUS after initiation of EUS services in a medium size town with a population of approximately 300,000. This could serve as a planner for other medical centers to assess the feasibility and cost-effectiveness of starting a new EUS services

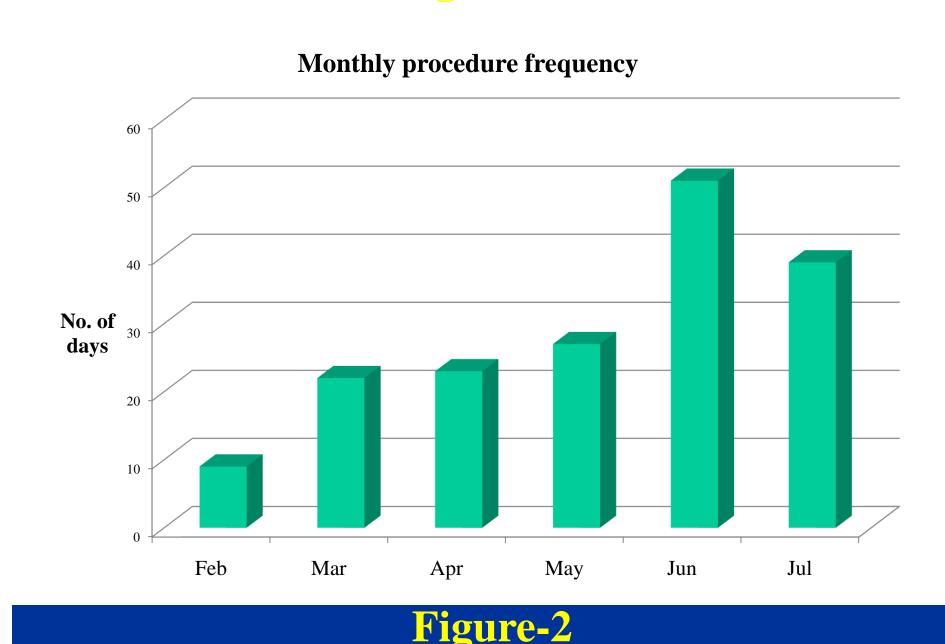
### Methods

The study was conducted at the university hospital which serves as a tertiary care center. Data on all the patients who underwent EUS during the first 6 months of starting EUS services was collected. Information on the number of patients referred for EUS during each successive month for the first six months after the initiation of the EUS services was obtained. In addition, data was analyzed for the number of patients who underwent EUS-FNA for cytopathological analysis and subsequent referral for therapeutic ERCP or referral to the Surgical, Oncology and Radiation Therapy services in the hospital. Primary outcome of the study was to assess the frequency of patient referrals for EUS. Secondary outcome was to assess the frequency of subsequent referral of these patients to other medical services at our hospital for further management.

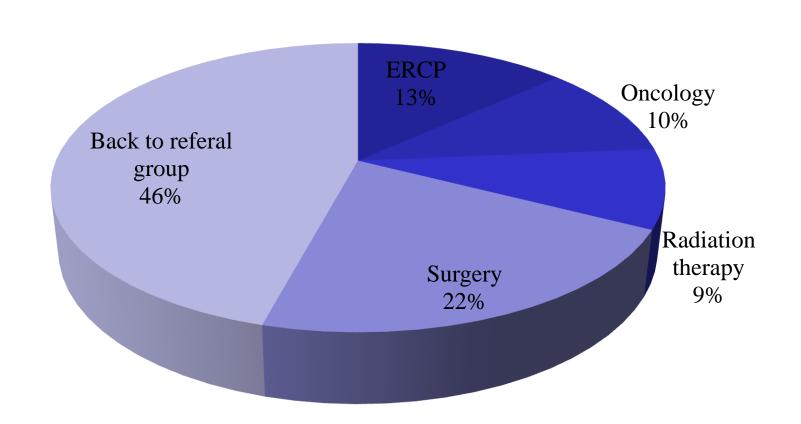
#### Results

During the first 6 months of initiation of EUS services, 181 patients underwent EUS procedure. The procedure frequency increased four-fold from nine in the first month to thirty-seven procedures in the 3rd month (Fig. 1). During the later 3 months of our study period, on average, 42 EUS procedure were performed each month. Of all the patients who underwent EUS, 23% were referred from other hospitals, 41% were either in-patients or out-patients from our institution and 35% of patients were referred from other gastroenterology groups. Cytopathological specimen was obtained in 51% of patients during EUS. Based on EUS results, 15% of patients subsequently had ERCP and 46% of patients were referred to other clinical services at our institution which includes 24% to Surgical, 12% to Oncology and 10% to Radiation therapy services (Fig. 2).

# Figure-1



## Patient referral following EUS



# Conclusion

Preliminary review of our data suggests that establishing EUS services in a medium-size town is highly feasible and cost-effective. Patient referral for EUS procedure was satisfactory. Additionally, EUS opens avenues for generating revenue for other medical services at our institution. Our study demonstrates EUS as a viable modality in the current practice of gastroenterology and supports its wider utilization.