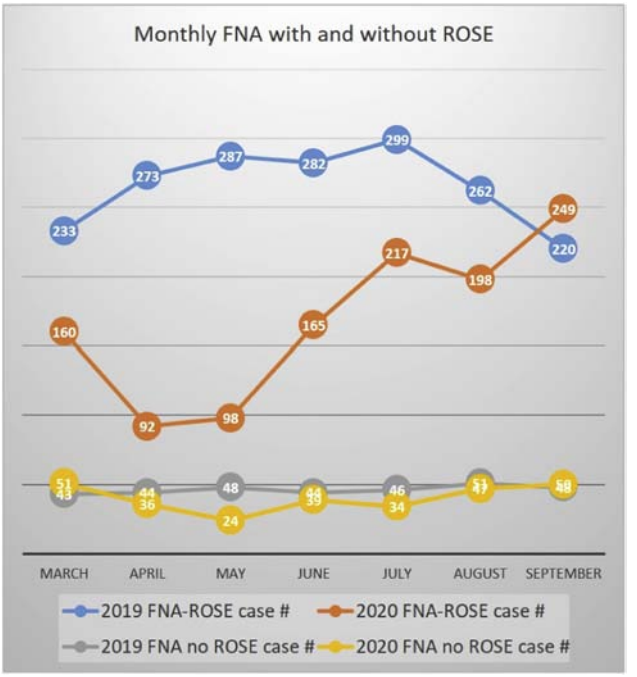
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Table 1 Summary of Discordant Cases

Patient	Sample	Discordance	OS Diagnosis	SO Diagnosis	Comment
1	HOP Solid	Minor	Favor papillary mucinous neoplasm, SFM	Adenocarcinoma with fragments of IPMN with HGD	Invasive component DFM
2	CBD	Minor	Suspicious for adenocarcinoma	Adenocarcinoma	
3	HOP Solid	Minor	PanIN-1	IPMN LGD	Terminology discrepancy
4	Cyst	Minor	Atypical	IPMN LGD	Not defined as mucinous and neoplastic, atypia not graded
5	Cyst	Minor	Scant epithelial cells with atypia	IPMN LGD, few cells suggestive HGD	Not defined as mucinous and neoplastic, atypia not graded
6	CBD	Major	Atypical	Adenocarcinoma	
7	Cyst	Major	NEOM	Neoplastic mucinous cyst	CEA 3377 ng/ml; not defined as mucinous
8	NOP Solid	Minor	Adenocarcinoma	Undifferentiated carcinoma	
9	HOP Solid	Minor	NEOM	Atypical glandular groups	
10	CBD	Major	Atypical epithelium	Adenocarcinoma	
11	BOP Solid	Minor	Scant markedly atypical cells; background pancreatitis	IPMN LGD	Not defined as mucinous and neoplastic, atypia not graded
12	CBD	Minor	Brushing: atypical CNB: SFM	Adenocarcinoma (both samples)	
13	BOP Solid	Minor	PD carcinoma	Undifferentiated carcinoma	

Table 1 Summary of Discordant Cases



PST106

The Effects of the COVID-19 Pandemic on FNA and Lung Cytology Utilization

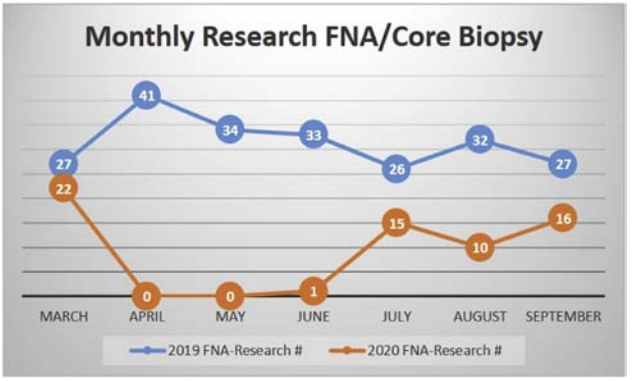
Christina Adams, CT, Jeffrey Thiboutot, MD, Lonny Yarmus, DO, Peter Illei, MD. Johns Hopkins Medical Institutions, Baltimore, Maryland

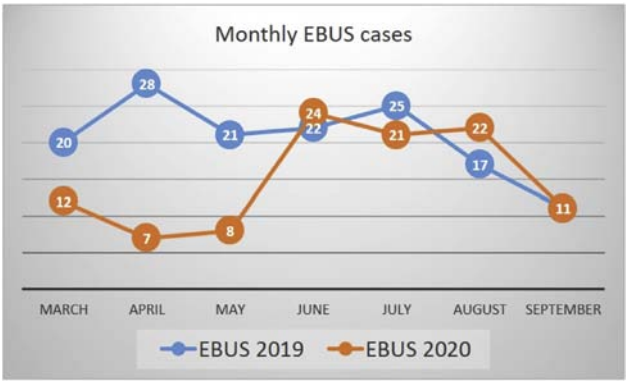
Introduction: The covid-19 pandemic resulted in marked reductions in elective procedures. In our locality, a catastrophic health emergency went into effect on March 5, 2020. Elective and non-urgent medical procedures resumed on May 7, while research biopsies only resumed in July.

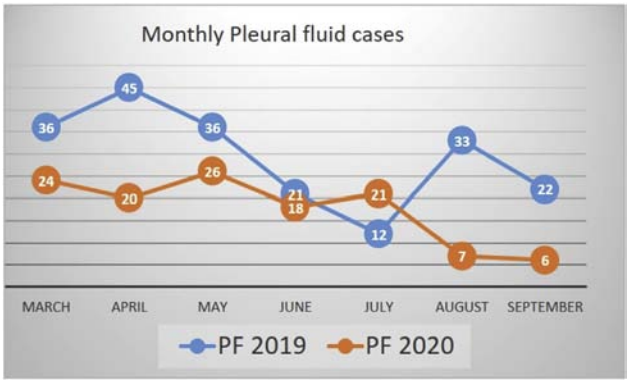
Materials and Methods: We compared monthly fine-needle aspirates with and without ROSE, research FNA/core biopsies, as well as EBUS FNA and thoracentesis case numbers during the same 6 month period (March-September) in 2019 (before the pandemic) to 2020 (during the pandemic). We used electronic medical records (Epic) and billing data (CPT codes for EBUS and thoracentesis).

Results: Numbers of FNA with and without ROSE, research biopsies, EBUS FNA, and pleural fluid case numbers are shown in figures 1-4. We saw a marked drop in the number of FNA with ROSE and EBUS FNA, and a complete stop of research biopsy in April and May 2020. EBUS FNA cases returned to pre-pandemic levels in June 2020, while total FNA cases with ROSE showed gradual improvement in June-August to reach pre-pandemic levels in September 2020. The number of FNA biopsies without ROSE remained stable at similar levels compared to 2019 except in May when we saw a 50% drop. In contrast, there was an initial 40-55% drop in thoracentesis in March-May 2020 followed by pre-pandemic levels or higher in June and July 2020 that was followed by an 80-70% drop in August and September.

Conclusions: There was a marked near across-the-board drop in all case types. Research biopsies were worse hit (no biopsy 3 for months), FNA with ROSE showed a relatively slow gradual return to pre-pandemic levels, while EBUS FNA and thoracentesis cases showed faster rebound. Additional data analysis and clinical follow-up are needed to determine the long-term effects on cancer care and survival.







PST107

Tumor Molecular Gene Profiling of Pancreatic Adenocarcinoma and Compliance with the Latest NCCN Guideline: A Regional Veteran Affairs Medical Center Experience

Jeffrey Petersen, MD, Darshana Jhala, MD. Corporal Michael J. Crescenz VA Medical Center and University of Pennsylvania, Philadelphia, Pennsylvania

Introduction: In 2019, the National Comprehensive Cancer Network (NCCN) recommended molecular tumor gene profiling in patients with metastatic or locally advanced pancreatic adenocarcinoma. However, studies for compliance with the NCCN guidelines have not yet been published in the English literature. Therefore, as part of quality assurance, a study was undertaken regarding compliance with this recommendation.

Materials and Methods: A retrospective review to identify cases of advanced pancreatic adenocarcinoma from all surgical pathology and cytopathology reports from January 2019 to February 2021 that had a morphology code of being from pancreas and a SNOMED code indicating either an atypical or malignant diagnosis. For each patient, a review of the computerized patient record system (CPRS) for molecular test results was performed to identify if and what molecular tumor gene profiling had been performed.

Results: There were a total of 20 patient cases identified with advanced pancreatic adenocarcinoma from January 2019 to February 2021. Out of these 20 cases, 12 cases (60%) had tumor gene profiling attempted. For 11 of these 12 cases, tumor gene profiling included gene profiling by Foundation One CDx (Cambridge MA) that included microsatellite instability (MSI) testing by polymerase chain reaction (PCR), and 1 of these 12 cases only had MSI testing by immunohistochemistry.

Conclusions: While the majority or 60% of patients had specimens sent for tumor gene profiling as recommended by the NCCN guidelines, in this first study on NCCN compliance there was a significant fraction of patients for whom tumor gene profiling had never been attempted as part of the patients' medical or laboratory care. Given the advances in precision-based medicine in pancreatic adenocarcinoma, the provision of recommended testing by the NCCN guidelines remains critical and important for the best quality care.

PST108

Utility of Special Stains vs Microbiologic Cultures in Granulomatous Inflammation in Cytology

Abhilasha Borker, MD, Khin Su Mon, MD, Swati Mehrotra, MD, Guliz Barkan, MD. Loyola University Medical Center, Maywood, Illinois

Introduction: Microbiologic cultures have a higher sensitivity and specificity compared to the special stains on cytology material. Despite that, at times there is a clinical request to perform special stains. We did an audit of Fine Needle Aspiration (FNA) of specimens with a diagnosis of "granulomatous inflammation" to determine the utility of microbiologic cultures sent during Rapid Onsite Evaluation (ROSE). We compared the sensitivity of cultures to special stains (acid-fast bacillus, AFB and Grocott's methenamine stain, GMS with the aim of deciphering the optimal approach for triage.

Materials and Methods: Reports of archived FNA specimens with a rendered diagnosis of "granulomas/granulomatous inflammation" between January 1st, 2014 and November 4th, 2020 were retrieved. Age, gender, source of the specimen, cytology diagnosis, microbiology culture results and special stains (AFB/GMS) results were reviewed and tabulated.

Results: There were a total of 13,379 FNA of which 242 (1.8%) specimens had a diagnosis of granulomas/granulomatous reaction. 232 of 242 specimens had undergone a ROSE. The patient population was composed of 62 women and 42 men between 22 to 84 years old (mean 53.62). 62 patients had more than one FNA specimen. Results tabulating specimen source, special stains and culture results are summarized in TABLES 1 and 2 respectively. TABLE 3 details the positive culture results (4/78, 5.1%) and positive stain results (2/77, 2.6%).

Conclusions: The sensitivity of special stains and microbiologic cultures in detecting microorganisms from cytology material is low. Despite low sensitivity, cultures are superior to special stains since we did not find any cases with positive staining and negative culture results. Using special stains yields a positive result lower than microbiologic cultures. Larger multi-institutional studies may lead to guidelines recommending using only cultures for triage, and special stains would be reserved for select situations in which cultures are not available.

Lymph node	216
Lung	9
Parotid	4
Neck Mass	3
Arm	2
Mediastinal Lesion	2
Thigh	2
Thyroid	1
Liver	1
Retroperitoneal	1

TABLE 1

Case No.	Site	Microbiology culture	Special Stains
1	Mediastinal Lesion	One cluster of *Aspergillus niger*	Negative (AFB, GMS)
2	Lung	*Nocardia*	Negative (AFB, FITE, GMS)
3	Thigh	Dematiaceous mold	Positive (GMS)
4	Mediastinal Lymph Node, 2R	AFB	Positive (AFB)

TABLE 2