Welcome to the Virtual Grand Rounds Waiting Room – The educational activity will begin promptly at 12 Noon Eastern.
Welcome to the Virtual Grand Rounds Waiting Room – The educational activity will begin promptly at 12 Noon Eastern.
SEVEN different award types; INCREASED Junior Faculty FUNDING; NEW Mid-Career Bridge Funding; Med Resident and Student Awards

www.gi.org/research-awards

Application Deadline: December 4, 2020

Read the Grant Flyer, FAQs, or visit the webpage for the RFAs.

Welcome to the Virtual Grand Rounds Waiting Room – The educational activity will begin promptly at 12 Noon Eastern.

Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode.

Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.
How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR
ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2020 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2021 for this activity.

MOC QUESTION
If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement. THESE ANSWERS WILL BE REVIEWED.
ACG Virtual Grand Rounds
Join us for upcoming Virtual Grand Rounds!

Week 35: Vaccinations for the Immunocompromised in the Era of COVID
Francis A. Farraye, MD, MSc, FACG
December 3, 2020 at Noon EDT

Week 36: New Therapeutic Options for EoE and EGIDs on the Horizon
Ikuo Hirano, MD, FACG
December 10, 2020 at Noon EDT
Visit gi.org/ACGVGR to Register

NOTE: There will be no Virtual Grand Rounds on November 26 due to Thanksgiving

Disclosures:

Speaker:
Timothy B. Gardner, MD, MS, FACG
Dr. Gardner has no conflicts of interest related to this talk.

Moderator:
Linda S. Lee MD
Dr. Lee has no conflicts of interest related to this talk.
ACG Virtual Grand Rounds

ACG Clinical Guideline: Chronic Pancreatitis

Timothy B. Gardner, MD, MS, FACG
Associate Professor of Medicine
Geisel School of Medicine at Dartmouth
Section of Gastroenterology and Hepatology
Dartmouth-Hitchcock Medical Center

Objectives

1. Designing Clinical Guidelines
2. Diagnosis
3. Etiology and Natural History
4. Management of Pain
5. Management of EPI
Objectives

Hermits are still out there...

North Pond Hermit, Maine

Case Presentation

Chief Complaint: Chronic abdominal pain

History of Present Illness:
- 42-year-old male
- Insidious onset of pain for several years
- Epigastric with radiation to the back
- 20-30 ounces of alcohol daily
- Unremarkable lab testing
- Normal fecal elastase
- CFTR ΔF508 heterozygote
Case Presentation

Serology: Normal amylase, lipase, TTG, IgG4, CA 19-9

4 EUS Morphologic Criteria

- Hyperechoic duct wall (body)
- Hyperechoic foci (head, body, tail)
- Hyperechoic strands (head, body, tail)
- Lobularity in body and tail
**Case Presentation**

How does one interpret these results?

Does he have chronic pancreatitis?

How should he be treated?

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**Designing Clinical Guidelines**

1. Designing Clinical Guidelines

2. Diagnosis

3. Etiology and Natural History

4. Management of Pain

5. Management of EPI
Designing Clinical Guidelines

Literature Search – major databases from 1946-present

Best evidence – i.e. RCTs, systematic review and meta-analysis

PICO questions for answerable questions
- Population/Problem
- Intervention
- Comparison
- Outcome
Designing Clinical Guidelines

PICO QUESTIONS

Once you have designed the PICO questions…

- Evaluate the literature to answer your questions

- If you have enough evidence to answer the questions, start the GRADE evaluation process
A few reminders about guidelines…

- They are limited by the amount of clinical trial evidence available

- There are multiple types of guidelines – beware of those that do not follow the GRADE system (i.e. beware of expert opinion)

- Not all important clinical questions can be answered – or even addressed – if using evidence-based guidelines

Two Types of Statements

1. Recommendations
   - Evidence
   - Grade System

2. Key Concepts
   - Not amenable to Grade
   - Often expert opinion
Objectives

1. Designing Clinical Guidelines
2. Diagnosis
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Diagnosis

Recommendation Statements

1. We recommend computed tomography (CT) or MRI for the first-line diagnosis of CP. Either test should be the first choice for the diagnosis of CP. Endoscopic ultrasonography (EUS), because of its invasiveness and lack of specificity, should be used only if the diagnosis is in question after cross-sectional imaging is performed (strong recommendation, low quality of evidence).
EUS Diagnosis: The Perfect Storm

No gold standard

Highly sensitive test

Confusing nomenclature

Increasing availability

Wide interobserver variation

Lack of specificity

Heavy reliance on expert opinion

Diagnosis

Recommendation Statements

2. We suggest performing secretin-enhanced magnetic resonance cholangiopancreatography (s-MRCP) when the diagnosis of CP following cross-sectional imaging or EUS is not confirmed and the clinical suspicion remains high (conditional recommendation, low quality of evidence).
Diagnosis

Recommendation Statements

3. We suggest histological examination as the gold standard to diagnose CP in high-risk patients when the clinical and functional evidence of CP is strong, but imaging modalities are inconclusive (conditional recommendation, very low quality of evidence).

Key Concepts

1. Pancreatic function testing is an important means of diagnosing EPI; however, its role in establishing the diagnosis of CP is complementary.
# Diagnosis

![Diagram of Diagnosis for Chronic Pancreatitis]

Figure 1. Diagnostic algorithm for chronic pancreatitis (CP) based on the clinicopathologic disease model of CP. This algorithm uses a symptom-first approach to diagnosis and does not strictly base on the etiology of disease or clinical risk factors. CT, computed tomography; MRCP, magnetic resonance cholangiopancreatography.

# Objectives

1. Designing Clinical Guidelines
2. Diagnosis
3. Etiology and Natural History
4. Management of Pain
5. Management of EPI

American College of Gastroenterology
Etiology and Natural History

Recommendation Statements

4. We recommend genetic testing in patients with clinical evidence of a pancreatitis-associated disorder or possible CP in which the etiology is unclear, especially in younger patients (strong recommendation, low quality of evidence).

<table>
<thead>
<tr>
<th>Gene</th>
<th>Inheritance pattern</th>
<th>Molecular/functional consequence</th>
<th>Clinical manifestations</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTRK2</td>
<td>Autosomal recessive</td>
<td>Activated tyrosine kinase</td>
<td>Associated with early-onset pancreatic disease</td>
</tr>
<tr>
<td>PRSS1</td>
<td>Autosomal recessive</td>
<td>Activated trypsinogenase</td>
<td>Associated with early-onset pancreatic disease</td>
</tr>
<tr>
<td>CFTR</td>
<td>Autosomal recessive</td>
<td>Activated calcium regulatory</td>
<td>Associated with early-onset pancreatic disease</td>
</tr>
</tbody>
</table>

5. We recommend alcohol cessation in patients with CP (strong recommendation, very low quality of evidence).

6. We recommend smoking cessation in patients with CP (strong recommendation, very low quality of evidence).
Etiology and Natural History

Key Concepts

2. In patients with clinical features of CP, a comprehensive review of all risk factors should be performed. This provides information on the underlying mechanisms, identifies both fixed and modifiable risk factors, identifies potential targets for therapies, and provides clinically relevant prognostic information.

3. Identification of the disorders(s) underlying pancreatic inflammation is important in predicting progression to CP.

4. The development of DM in CP is most likely related to duration of disease, although other etiologic factors such as body mass index and smoking status may incur an increased risk.

5. There is a lack of evidence to suggest that performing screening examinations on patients with CP to detect pancreatic malignancy is beneficial.

Objectives

1. Designing Clinical Guidelines

2. Diagnosis

3. Etiology and Natural History

4. Management of Pain

5. Management of EPI
Management of Pain

Recommendation Statements

7. We recommend surgical intervention over endoscopic therapy in patients with obstructive CP for the long-term relief of pain if first-line endoscopic approaches to pancreatic drainage have been exhausted or unsuccessful (strong recommendation, moderate quality of evidence).

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8. We suggest considering the use of antioxidant therapy for CP with pain, although the benefit of pain reduction is likely limited (conditional recommendation, moderate quality of evidence).

9. We do not suggest the use of pancreatic enzyme supplements to improve pain in CP (conditional recommendation, low quality of evidence).
8. We suggest considering the use of antioxidant therapy for CP with pain, although the benefit of pain reduction is likely limited (conditional recommendation, moderate quality of evidence).

9. We do not suggest the use of pancreatic enzyme supplements to improve pain in CP (conditional recommendation, low quality of evidence).

10. We suggest considering celiac plexus block for treatment of pain in CP (conditional recommendation, very low quality of evidence).
Virtual Grand Rounds

Management of Pain

Key Concepts

6. Performing elective interventional procedures on patients who are actively using alcohol should be considered cautiously. Patients requiring urgent or emergent procedures for complications of CP should be considered separately.

7. Opiates may be considered to treat painful CP only in patients in whom all other reasonable therapeutic options have been exhausted.

8. TPIAT should be reserved for highly selected patients with refractory chronic pain in which all other symptom control measures have failed.

Objectives

1. Designing Clinical Guidelines

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Management of EPI

Recommendation Statements

11. We suggest PERT in patients with CP and EPI to improve the complications of malnutrition (conditional recommendation, low level of evidence).

Key Concepts

10. Patients with CP should have periodic evaluation for malnutrition, including tests for osteoporosis and fat-soluble vitamin deficiency.
Objectives

1. Designing Clinical Guidelines
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Future Areas of Investigation

Investigate the Mechanistic Definition of CP...

definition worldwide (15,16). The Mechanistic Definition affirms the characteristics of end-stage disease as pancreatic atrophy, fibrosis, pain syndromes, duct distortion and strictures, calcifications, pancreatic exocrine dysfunction, pancreatic endocrine dysfunction, and dysplasia, but also addresses the disease mechanism as a pathologic fibroinflammatory syndrome of the pancreas in individuals with genetic, environmental, and/or other risk factors who develop persistent pathologic responses to parenchymal injury or stress. The definition is linked to a progressive model to
Future Areas of Investigation

Further comparative effectiveness treatment trials…

Future Areas of Investigation

A reckoning of how these patients are demonized, mistreated, and cared for by our profession…
Thank You

“Man cannot discover new oceans unless he has the courage to lose sight of the shore”

- Andre Gide

1947 Nobel prize for literature

Questions?

Speaker:
Timothy B. Gardner, MD, MS, FACG

Moderator:
Linda S. Lee MD
2020
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