Welcome

❖ Brief overview of COVID-19

❖ Session Outline
  • Case Presentation:
  • Didactic Presentation
  • Question & Answer with panelists
    • We will review questions submitted through registration
    • You may submit questions during the session via the Q&A feature found at the bottom of your screen
    • Technical issues may be submitted via the chat feature and IGCS staff will respond

❖ ECHO etiquette
  • Panelists will be the only ones able to speak during this session.
  • Attendee microphones will be muted.

❖ Recording will be available on IGCS website
Coronavirus: SARS CoV-2 (2019)

- Single stranded RNA virus
- Binds to angiotensin-converting enzyme site (ACE2) in the epithelium
- Infects both upper and lower respiratory tracts
- Common symptoms
  - Fever, cough, shortness of breath, myalgias
  - Sore throat, diarrhea, nausea/vomiting

Transmission and Viral Shedding

**Transmission**
- Respiratory droplets
- Close personal contact
- Touching a surface with virus and then touching mouth/nose/eyes
  - Up to 48 hours on solid surfaces
- Bodily fluid (RNA detected)
  - Respiratory tract specimens
  - Blood and stool specimens

**Viral Shedding**
- Highest early in the course
  - Can occur in the 24-48 hours prior to symptoms onset
- Continues for 7-12 days in mild/moderate cases
  - >2 weeks in severe cases
- After recovery, PCR positive after symptoms resolve up to 4 weeks
  - Unknown if this equals presence of infectious virus
COVID-19 Timeline

- Dec 8: First Case Identified
- Dec 26: First Cluster recognized in Wuhan
- Jan 7: New Virus Identified
  - SARS-CoV-2 as cause of COVID-19
- Jan 20: First confirmed human-to-human transmission
- Jan 30: WHO Public Health Emergency of International Concern declared
- March 11: Pandemic Declared
- April 2: Over 1 million cases
Geographic distribution

Over 1.03 million cases
Over 54,000 deaths
## Associated Factors and Mortality

<table>
<thead>
<tr>
<th>AGE</th>
<th>DEATH RATE confirmed cases</th>
<th>DEATH RATE all cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>80+ years old</td>
<td>21.9%</td>
<td>14.8%</td>
</tr>
<tr>
<td>70-79 years old</td>
<td>8.0%</td>
<td></td>
</tr>
<tr>
<td>60-69 years old</td>
<td>3.6%</td>
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<tr>
<td>50-59 years old</td>
<td>1.3%</td>
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<tr>
<td>40-49 years old</td>
<td>0.4%</td>
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<tr>
<td>30-39 years old</td>
<td>0.2%</td>
<td></td>
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<tr>
<td>20-29 years old</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>10-19 years old</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>0-9 years old</td>
<td>no fatalities</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRE-EXISTING CONDITION</th>
<th>DEATH RATE confirmed cases</th>
<th>DEATH RATE all cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>13.2%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>9.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Chronic respiratory disease</td>
<td>8.0%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>8.4%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Cancer</td>
<td>7.6%</td>
<td>5.6%</td>
</tr>
<tr>
<td>no pre-existing conditions</td>
<td>no fatalities</td>
<td>0.9%</td>
</tr>
</tbody>
</table>
Impact on Cancer Patients

A

- Invasive ventilation or ICU admission, or death, plus clinical indication
- Invasive ventilation or ICU admission, or death

<table>
<thead>
<tr>
<th></th>
<th>Incidence of severe events (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No cancer</td>
<td>10</td>
</tr>
<tr>
<td>Cancer survivors</td>
<td>40</td>
</tr>
<tr>
<td>Patients with cancer</td>
<td>70</td>
</tr>
</tbody>
</table>

B

- Patients without cancer
- Patients with cancer

Hazard ratio 3.56 (95% CI 1.65–7.69)

Probability of severe events (%) vs Time after disease onset (days)
Panelist Introduction

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Dept of Gynecologic Oncology
Sun Yet-sen University Cancer Center
Guangzhou, China

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OB/GYN Consultant
Campus Bio-Medico Hospital
Rome, Italy

René Pareja, MD
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Instituto Nacional de Cancerología (Bogotá)
Clinica de Oncologia Astorga (Medellín)
Colombia
Case Presenter

R. Wendel Naumann, MD
Professor & Director of Research in Gyn Oncology
Associate Medical Director of Clinical Trials
Levine Cancer Institute, Atrium Health
Charlotte, NC USA

Didactic Lecturer

Emma Rossi, MD
Assistant Professor of OB/GYN
University of North Carolina at Chapel Hill, NC USA
PLEASE NOTE that Project ECHO® case consultations do not create or otherwise establish a provider-patient relationship between any International Gynecologic Cancer Society (IGCS) volunteer clinician and any patient whose case is being presented in a Project ECHO® setting. Responsibility for the patient remains with the Medical Team who cares for the Patient at the Presenting Institution.
Medical History of Patient

❖ 71yo
❖ Postmenopausal, presented with 1 month pelvic pain.
❖ PMH: T2DM, cHTN, HLD, hypothyroid
❖ Family history is unremarkable
❖ CT scan shows a complex 9 cm right adnexal mass, omental nodularity, small volume ascites (not amenable to U/S drainage)
❖ Labs
  ❖ CA125 – 579
  ❖ CEA - 8
Physical Examination

- BMI 42
- ECOG – 2 with limited mobility
- 9 cm slightly tender right adnexal mass.
Scans

- CT shows a 9 x 7 cm complex adnexal mass. Minimal ascites. There was omental thickening consistent with carcinomatosis.
Treatment of Patient

❖ Plan CT guided biopsy of omentum and neo-adjuvant chemotherapy with possible minimally invasive surgery after 3 cycles
❖ CT informs you that they cannot do a biopsy as case is considered non-essential due to COVID-19
❖ You call radiology and they refuse to do the biopsy
❖ You are informed all surgeries that are not immediately life threatening are on hold
❖ GI refuses endoscopy for similar reasons
Options

❖ Give chemotherapy without pathologic confirmation
❖ Wait until symptomatic
Options

- Symptoms get worse with increasing abdominal pain and Ca125 increases to 1253
- Patient opts for chemotherapy without biopsy
- Infusion unit now closed due to need for additional hospital bed space
Delays in Gynecologic Cancer Surgery

An evidence based approach to the acuity of cancer surgery

Emma Rossi, MD
University of North Carolina, Chapel Hill
Conflict of Interest

I have no relevant conflicts of interest to declare
Surgical restrictions in the era of COVID-19: why?

- Preservation of PPE
- Enforcement of social distancing
- Minimizing risk of staff contracting disease
- Preservation of hospital resources for COVID-19 patients
  - Inpatient beds
  - ICU beds (and ventilators)
  - Blood products
  - ER beds
Categorization of Case Urgency

• Dependent upon health system and anticipated timing of “surge”
• Temporal definitions
  • “patient will incur harm if procedure not performed within … weeks/hours/days”
• No restrictions
  • Elective and non-elective cases free to book
• Non-elective cases only
  • Cases that need to be performed within 4 weeks
• Urgent cases
  • Cases that need to be performed within 72 hours
• Emergent cases
  • Cases that need to be performed within 6-24 hours
Is it safe to delay cancer surgery?

Perceptions:

Patient
- Fear and anxiety: what stage am I? What is my prognosis?
- If we wait, the cancer will spread and will become a more advanced stage.

Surgeon
- My patients are unhappy. Wanting to serve as their advocate.
- How will I get all of these cases done when restrictions are lifted?
- Will a (now) straightforward case become more complex with waiting?
- Will I get sued if the patient has a bad cancer outcome and her surgery was originally delayed?
- Feeling of impotency during a crisis.
Endometrial Cancer: outcomes with surgical delay

- Low grade cancers seem more sensitive to delays
- These are often cancers that can be cured by surgery
## Endometrial Cancer

Systematic review confirms benchmark for optimal timing of surgery should be 8 weeks

<table>
<thead>
<tr>
<th>Year; author</th>
<th>NOS</th>
<th>Patient n (% age)</th>
<th>Stage</th>
<th>Wait time limit</th>
<th>Median wait time</th>
<th>Hazard ratio</th>
<th>Tumor recurrence</th>
<th>OS (median)</th>
<th>5-year OS</th>
<th>Other OS</th>
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<tbody>
<tr>
<td>Studies investigating time to surgery interval</td>
<td></td>
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<tr>
<td>2019; AlHilli</td>
<td>7</td>
<td>284,499 (-)</td>
<td>I-IV</td>
<td>6 weeks</td>
<td>27 (10–41) vs 26 (19–40)</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>2-year</td>
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<td>2016; Shalowitz</td>
<td>7</td>
<td>208,438 (37 --∞)</td>
<td>I-IV</td>
<td>Stratified -</td>
<td>-</td>
<td>+</td>
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<td>-</td>
<td>+</td>
<td>-</td>
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<tr>
<td>2016; Strohl</td>
<td>6</td>
<td>112,041 (71.5)</td>
<td>I-IV</td>
<td>6 weeks</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>2015; Matsuo</td>
<td>7</td>
<td>435 (-)</td>
<td>I</td>
<td>Stratified ∞</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
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<tr>
<td>2015; Sabourin</td>
<td>--</td>
<td>1,687 (40.3)</td>
<td>I</td>
<td>Stratified ∞</td>
<td>49 (2–490)</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2014; Elit</td>
<td>6</td>
<td>9,417 (44)</td>
<td>N/A</td>
<td>Stratified ∞</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>3-year and 7-year β</td>
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<tr>
<td>2013; O’Leary</td>
<td>--</td>
<td>9,330 (45)</td>
<td>N/A</td>
<td>6 weeks</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>
Ovarian cancer: advanced stage

- Primary cytoreductive surgery (PCRS) vs neoadjuvant chemotherapy (NACT)
- Algorithmic approach
  - NACT for older age, poorer performance status, bulky upper abdominal disease
  - Primary CRS associated with higher risk for blood products, ICU stay, readmission, prolonged hospitalization
- NACT for all approach
  - Needs pathology
  - Induces immunocompromised population
  - Less hospital-based resources used
Ovarian cancer: advanced stage

• EORTC + CHORUS
• NACT is non-inferior (OS & PFS)

Vergote et al, Lancet Oncology Volume 19, Issue 12, December 2018, Pages 1680-1687
Ovarian cancer: early stage

- UKCTOCS
- Abnormal screen → 6-12 week delay before repeat scan performed & then surgery
- Despite this delay there was a favorable stage shift seen in screening population (more early stage cancers)

Cervical Cancer: delayed surgery in pregnancy

- Pregnancy is a common indication for delay in treatment for cervical cancer.
- This delay is not associated with significantly worse outcomes.

| Obstetric and Oncologic outcomes for pregnant cases and nonpregnant control patients |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                                 | Pregnant n = 28                | Nonpregnant n = 52              | P value |
| Obstetric data                 |                                 |                                 |         |
| GA at diagnosis, wk Mean (SD; range) | 17.4 (7.1; 5–32.3)             | –                               |         |
| GA at delivery, wk Mean (SD)   | 36.1 (5.3)                     | –                               |         |
| Termination N (%)              | 7 (25)                         | –                               |         |
| Planned vaginal delivery N (%) | 3 (14.3)                       | –                               |         |
| Birthweight, g Mean (SD)       | 2820 (592)                     | –                               |         |
| Oncologic data                 |                                 |                                 |         |
| Radical hysterectomy N (%)     | 14/28 (50.0)                   | 30/52 (57.7)                    | .51     |
| EBL, mL Mean (95% CI)          | 1108 (336–1284)                | 714 (225–850)                   | .32     |
| Operative time, min Mean (95% CI) | 268 (188–294)                | 259 (181–260)                   | .54     |
| Transfusion N (%)              | 5/24 (21)                      | 5/50 (10)                       | .09     |
| Delay from diagnosis to treatment, wk Mean (95% CI) | 20.8 (2.9–53.9)             | 7.9 (0.4–20.1)                  | .0014   |
| Still living N (%)             | 25 (89.3)                      | 51 (98.1)                       | .09     |

CI, confidence interval; EBL, estimated blood loss; GA, gestational age. 
Lower Genital Tract Cancers: surgical delays

- No significant disease progression for wait times >28 days
- Mean length of delay was 75 days for the 10 patients who progressed (range 38-132 days)

Conclusions

• Delays up to 6 weeks, and possibly longer, are not associated with deleterious oncologic outcomes
• Not applicable for emergent indications (bleeding, obstruction etc)
• Consider when to start the delays – early vs late
Question & Answer
COVID-19 Resources for Gynecologic Oncology Patients

Full list of resources listed available at https://igcs.org/covid-19/
COVID-19 Global Pandemic: Options for Management of Gynecologic Cancers

- Outpatient clinic visits
  - Restrict new/consult visits to high acuity
  - Telemedicine or postpone visits/tests for surveillance
  - Limit personnel and visitors

- Management of disease
  - Low risk: Hormonal therapy or delay of intervention
  - Limit surgeries to key procedures
  - High risk: Neoadjuvant chemotherapy
  - Restricting enrollment on clinical trials
SGO COVID-19 Guidelines

• Oncology patients at highest risk for severe events:
  • Patients ≥ 65 years old
  • Patients at any age with significant co-morbidity or ECOG status ≥ 2
  • Patients receiving cytotoxic chemotherapy

• General considerations:
  • Pre-screen clinic patients via telephone.
  • Reschedule or use telehealth for routine visits. Minimize testing.
  • Prioritize newly diagnosed and recurrent cancer patients with symptoms.
  • Restrict visitors and encourage physical distancing; minimize personnel interactions.

• Management of disease:
  • Neoadjuvant chemotherapy may be effective in delaying surgery and inpatient hospitalization.
  • Consider treatment that minimizes risk of hospitalization or allows use of telemedicine.
  • Consider alternative strategies that minimize exposure to the health care setting.
  • Delay therapy in low risk cases.
<table>
<thead>
<tr>
<th>Tiers/Description</th>
<th>Definition</th>
<th>Locations</th>
<th>Examples</th>
<th>Action</th>
</tr>
</thead>
</table>
| Tier 1a*          | Low acuity surgery/healthy patient  
Outpatient surgery  
Not life threatening illness | Ambulatory surgical center (ASC)  
Hospital with low/no COVID-19 census | Surgery for benign-appearing ovarian cysts  
Hysterectomy for menorrhagia without anemia | Postpone surgery or perform at ASC |
| Tier 1b*          | Low acuity surgery/unhealthy patient | ASC  
Hospital with low/no COVID-19 census | | Postpone surgery or perform at ASC |
| Tier 2a*          | Intermediate acuity surgery/healthy patient  
Not life threatening but potential for future morbidity and mortality.  
May require in-hospital stay | ASC in select cases  
Hospital with low/no COVID-19 census | Hysterectomy for pre-cancerous conditions or low risk endometrial cancer | Postpone surgery or consider ASC |
| Tier 2b*          | Intermediate acuity surgery/unhealthy patient | ASC  
Hospital with low/no COVID-19 census | | Postpone surgery if possible or consider ASC |
| Tier 3a*          | High acuity surgery/healthy patient  
Potentially life threatening or patient is highly symptomatic  
Requires in-hospital stay | Hospital | Surgery for most cancers  
Resection of masses resulting in significant end-organ damage or quality of life impairment | Do not postpone |
| Tier 3b           | High acuity surgery/unhealthy patient | Hospital | | Do not postpone |

*If high COVID-19 census for any tier, case prioritization may change.
Minimally Invasive Surgery

- Minimize production of plume
  - Employ devices with low power setting and avoid long desiccation times
- Use a closed smoke evacuation/filtration system with Ultra Low Particulate Air Filtration (ULPA) capability
- Use laparoscopic suction to remove surgical plume
- Use low intra-abdominal pressure (10-12mmHg) if feasible
- Avoid rapid desufflation or loss of pneumoperitoneum
  - During instrument exchange or specimen extraction
  - Do not vent into the room
- Minimize blood/fluid droplet spray or spread
- Minimize leakage of CO2 from trocars (check seals or use disposable trocars)
- Consider similar precautions with vaginal and laparotomy cases
WHO Operational Planning Guidelines

Goals: Balance demands of COVID-19, maintain essential health service delivery and mitigate the risk of system collapse

1: Establish simplified purpose-designed governance and coordination mechanisms to complement response protocols

2: Identify context relevant essential services

3: Optimize service delivery settings and platforms

4: Establish effective patient flow at all levels

5: Rapidly redistribute health workforce capacity
   - Reassignment and task sharing

Closing Notes

❖ Recording posted on IGCS website within 48 hours
❖ Series continued:
   ❖ Tuesday, April 14
   ❖ Friday, April 24
❖ www.igcs.org/covid-19
Thank You

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igcs.org