Abnormal Necropsy Findings in Marine Turtles

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Gross Necropsy
The basics...

- A diagnosis CANNOT be made from a gross pm!
- Vital information can be gathered to aide diagnosis
  - History
  - External examination
  - Internal information
Gross Necropsy
Describing Gross Pathology...

• Lesions
  – Size (length x width x depth)
  – Exact location
  – Number
  – Shape
  – Colour
  – Consistency

• Fluids
  – Location (e.g. pericardial, coelomic)
  – Volume
  – Colour
  – Translucency
  – Viscosity
  – Material present
Gross Necropsy
External

- Fractures & Abnormalities

Gross Necropsy
External

- Body condition
- Epibiotic burdens - species differences!
**Gross Necropsy**

**External**

- Fibropapillomatosis

**Musculoskeletal**

- Muscular atrophy & paling
- Serous atrophy of fat
- Fractures

**TABLE 1.** Numbers of each size class of tumors used for placement into a particular tumor score category for green turtles afflicted with fibropapillomatosis in Hawaii.¹

<table>
<thead>
<tr>
<th>Tumor size</th>
<th>Tumor score</th>
<th>0</th>
<th>1–5</th>
<th>&gt;5</th>
<th>&gt;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 cm</td>
<td></td>
<td>0</td>
<td>1–5</td>
<td>&gt;5</td>
<td>&gt;5</td>
</tr>
<tr>
<td>1–4 cm</td>
<td></td>
<td>0</td>
<td>1–5</td>
<td>&gt;5</td>
<td>&gt;5</td>
</tr>
<tr>
<td>&gt;4–10 cm</td>
<td></td>
<td>0</td>
<td>1–3</td>
<td>&gt;4</td>
<td></td>
</tr>
<tr>
<td>&gt;10 cm</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Gross Necropsy
Cardiovascular - heart

- Crystalline structures (euthanasia)
- Parasites

Gross Necropsy
Cardiovascular - vessels

- Parasites
**Gross Necropsy**

**Cardiovascular- respiratory**

- Over-inflation of lungs & tracheal surfactant

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**Gross Necropsy**

**Gastrointestinal**

- Gut fill
- Obstruction- impaction vs foreign body
Gross Necropsy
Gastrointestinal

• Spirorchiid parasites

Gross Necropsy
Hepatic

• Hepatomegaly
• Distended gall bladder
Gross Necropsy
Central Nervous System

• Parasites & Trauma

Conclusions

In short...

• Gross necropsy helps link history to histology
• Look & record- leave the diagnoses to the histopathologists!
• Common things occur commonly