Autopsy of a Dill Pickle

This poor pickle was met with an unfortunate end last week and it’s up to you, my wonderful, brilliant coroners, to identify the cause of death. In order to do this, we must dissect the remains in an effort to explain the demise of this pickle, as well as, to understand anatomical terminology and procedural directions. So, basically this death is going to further your careers...you nasty little surgeons, you!

Seriously, though, we are going to use our “test corpse” (1) to learn how to use dissection tools, (2) to expand your vocabulary for future experiments and dissections and (3) to review biology and chemistry concepts. This is going to be a big stretch of your imagination, but I would still like for you to treat your “test corpse” as you would a real dissection creature, or in your possible future, a human subject.

Neatly record all information in your anatomy compbooks. Title and label all stages. Also, list your partner’s and your name at the top of the lab (don’t forget to add M.D. after because we’d never have inexperienced people working in our hospital!)

TOOLS:
1. Scalpel
2. Forceps
3. Dissecting Tray
4. Dissecting Pins
5. Scissors
6. Teasing Needles
7. Blunt Probe
8. Dropper
9. pH test paper
10. Microscopes
11. Slide, cover slip, razor

Stage One: Patient Information
Gathering background information and basic statistics about your patient is necessary. Important information you need about your patient includes (but is not limited to) the following: Name, Age, Gender, Height (cm), Mass (grams), City & State of death, Date of death, Date of autopsy.

Stage Two: External Examination
Observation will be vital to understanding what happened to the unfortunate pickle. Examine the exterior of the body for abnormalities such as wounds or scars from injuries/surgeries, tattoos or piercings, or other important markings. Draw both dorsal and ventral (posterior and anterior) views of your pickles, indicating your findings on the drawings. Label the views.

Stage Three: Anatomical Regions
On your diagrams from the previous stage (or on new dorsal and ventral diagrams if needed), identify the following areas with labels. Draw accordingly if visible from both dorsal and ventral sides. Use different colored pencils to shade the region of the pickle in which these areas are found and label by writing out the word (not just the letter).

a. otic  f. acromial  k. popliteal  p. sternal
b. mammary  g. mental  l. axillary  q. femoral
c. coxal  h. umbilical  m. brachial  r. abdominal cavity
d. crural  i. vertebral  n. cephalic  s. cranial cavity
e. lumbar  j. gluteal  o. costal  t. thoracic cavity
**Stage Four: Internal Examination**

This stage of the autopsy includes careful examination of many or all of the internal organs. The ventral body cavity (A) is opened by a deep Y-shaped incision (B). The arms of the Y start at the anterior surface of shoulders (C) and join at the inferior point of the breastbone (sternum) (D) to form a single cut that extends to the pubic area (E). Then, make an upside down Y cut around the pubic area. Draw the pickle and the lines of incision. **Label A-E.**

After the ribcage is sawn through, the thoracic cavity (F) can be opened like hinged doors (G) to expose the internal organs (H). The contents of the abdominopelvic cavity (I) will also be visible. To examine the brain (J), a portion of the skull must be removed. Make a transverse incision (K) through the skull just superior to the otic region (L).

The face, arms, and legs are usually not dissected unless there is a specific reason for doing so. Draw the pickle at this stage of the autopsy. **Label F-L,** indicating superficial and deep layers.

Make new diagrams of the pickle to indicate where these **planes** would be cut to expose internal organs in order to inspect for abnormal internal anatomy in different body regions.

- **Parasagittal** plane to the right
- **Transverse** section of the cranial cavity
- **Frontal** section of the pelvic cavity
- **Transverse** section of the thoracic cavity

Make enlarged drawings of at least 2 organs of interest within the pickle (pickle or human organs). These organs may have injuries or abnormalities you found during the internal examination.

**Stage Five: Histology & Chemistry Report**

After the organs are returned to their respective body cavities, and the body is stapled shut, the next phase of the autopsy begins. It is a microscopic examination of tissues collected during the previous stages. Tests to analyze the chemical content of body fluids or to determine the presence of infectious organisms will be performed.

Examine a **thin** slice of pickle tissue under the **compound light microscope.** Draw the microscopic structure of the tissue sample at 40x and 100x on the microscope. Examine and draw an external structure or wound or an internal organ with the **dissecting scope.** Label the three drawings.

Then, collect a sample of body fluid using the droppers at the front of the room.
Test the pH of body fluid using pH test paper:  pH=______

Is the body fluid acidic, basic, or neutral?

Note: Normal pH of human body tissues is 7.35-7.45.

**CONCLUSION:**

What is your finding about the cause of death for this patient?

Support your opinion with specific details from each section of the autopsy, and be sure to use pertinent anatomical vocabulary and phrases to describe the injuries and cause of death.

*Be creative, you can’t answer this question wrong – but you can answer it poorly, so put in some effort!!!* Find and watch autopsy clips on the internet to give ideas about how it should sound.
Websites & Videos

https://www.youtube.com/watch?v=KI34YYQ9BuU&list=PL3HoGuO6pmcF0uhQMHZ-YO0bVpxx7Kff&index=6 – 2min – Smithsonian – overview of history and how an autopsy is performed