



HISTOPATHOLOGY - FIRST COURSE

LAB -5- THE GROSS ROOM/SURGICAL CUT-UP INCLUDING SAMPLE HANDLING

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كلية التقنيات الصحية والطبية

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قسم تقنيات المختبرات الطبية

Third Stage

المرحلة الثالثة

محاضرة رقم 5

Lecture No. 1

الجانب العملي

Practical

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INTRODUCTION:

The gross room, also known as the surgical cut-up area, is a critical component of the histopathology laboratory where surgical specimens are received, examined, and sampled for microscopic examination. The primary goal of the gross room is to accurately process and prepare tissue samples for diagnosis, ensuring that the best possible care is provided to patients.

□ Objectives

- Understand the importance of the gross room in the histopathology

laboratory

- Familiarize with the procedures and protocols for handling surgical

specimens

- Recognize the safety measures and precautions necessary in the gross

room

❖ Gross Room Procedures

1. Specimen Receipt and Accessioning*

- Verify specimen identity and match with clinical information
- Assign a unique laboratory number
- Record relevant clinical data and specimen description
- Check for proper fixation and container labeling

2. Gross Examination

- Examine the specimen's external appearance, noting size, shape, color, and any abnormalities
- Weigh and measure the specimen
- Document findings, including photographs if necessary
- Identify areas of interest or abnormalities

3. Dissection and Sampling

- Use sterile instruments to dissect the specimen
- Select representative tissue samples for microscopic examination

- Take samples from areas of interest or abnormalities
- Ensure adequate sampling for diagnosis

4. *Fixation and Processing - Place tissue samples in fixative (e.g., formalin)

- Label and submit cassettes for processing
- Monitor fixation time and conditions

5. *Description and Documentation - Record gross findings, including measurements and descriptions

- Document any notable features or abnormalities
- Include clinical history and relevant information

*Safety Measures and Precautions

- Wear personal protective equipment (PPE): gloves, lab coats, and face shields
- Handle instruments with care, and dispose of sharps properly
- Clean and disinfect surfaces regularly
- Follow biohazard protocols for handling infectious materials
- Use proper ventilation and exhaust systems

*Gross Room Tools and Equipment

- Sterile instruments (e.g., scalpels, forceps, scissors)
- Cutting boards and surfaces
- Fixative containers and cassettes
- Measuring devices (e.g., rulers, calipers)
- Photography equipment (e.g., cameras, scales)
- Tissue processors and embedding equipment

*Best Practices

- Accurately label and document specimens
- Handle tissues gently to prevent damage
- Use proper fixation techniques to preserve tissue morphology
- Maintain a clean and organized workspace
- Follow established protocols for handling specific specimen types

*Quality Control and Assurance

- - Regularly review and update protocols
- Monitor staff performance and provide training
- Participate in proficiency testing and quality assurance programs
- Maintain accurate records and documentation

*Specimen Types and Handling

- *Tumor Specimens*: Handle with care, ensuring adequate sampling for diagnosis
- *Frozen Sections*: Use cryostat and proper fixation techniques
- *Small Biopsies*: Handle gently, using specialized techniques
- *Large Specimens*: Use proper dissection and sampling techniques

*Conclusion

- The gross room plays a vital role in the histopathology laboratory, requiring meticulous attention to detail and adherence to protocols. By following established procedures and safety measures, laboratory professionals can ensure accurate diagnoses and optimal patient care.

References

- [1] Bancroft JD, Gamble M. Theory and Practice of Histological Techniques. 7th ed. Churchill Livingstone; 2013.
- [2] Rosai J. Rosai and Ackerman's Surgical Pathology.

Any questions?

*Thank
You*