TEACHING ACTIVITIES FOR THE IMPROVEMENT OF
HISTOLOGICAL KNOWLEDGE IN AN INTEGRATED EDUCATIONAL
SYSTEM: THE GRADE OF MEDICINE OF THE UNIVERSITY JAUME I

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INTRODUCTION

BACHELOR’S DEGREE IN MEDICINE

1º course
2º course
3º course
4º course
5º course
6º course

GENITOURINARY AND RENAL SYSTEMS

Areas involved in teaching:
• Anatomy Area
• Cell Biology Area
• Physiology Area

Basic subjects
Clinical subjects
Educational Innovation Group: ERCOHIS (Evaluation of resources and contents on histological knowledge in the Grade of Medicine).

Educational Innovation Group: “Establishment of a repository of histological images and development of activities for the improvement of histological knowledge in the Degree in Medicine”.

WORK PROPOSAL

Educational innovation activities for the improvement of histology knowledge in the subject of Genitourinary and Renal system.

- Histology content: female reproductive tract and its variation through the menstrual cycle, menopause and pregnancy, including the histology of the mammary gland.

- Practical and Seminar teaching sessions.
• To allow the students to correctly understand the relation between the physiological and histological changes in the female reproductive tract.

• To improve the teaching-learning process.

• To improve the curriculum itinerary (vertical integration) between the basic subjects of the Degree in Medicine and the clinical subjects (Anatomical Pathology, 3º course).
Cooperative learning activity: Aronson’s puzzle

Practical session for the study of histology of the female reproductive system (ovary)

Schedule:
• Phase 1: Work distribution in the original groups - 4 groups (5 students/ group)
• Phase 2: Work of the group of experts
• Phase 3: Work of the original groups

Case study and problem-solving

Seminar session for the study of the histology of the mammary gland

Schedule:
• Master explanation of the histology of the mammary gland
• Learning based on problem-solving (histology in pathologies of the mammary gland)
• Group discussion
Cooperative learning activity: Aronson’s puzzle

• Time reduction for the practical session and reduced individual workload.

• Positive qualitative evaluation of the work reports elaborated by the students (larger histological details than in individual reports).

• Improvement of the marks of the questionnaire:

<table>
<thead>
<tr>
<th>Aronson’s puzzle</th>
<th>Mark of the questionnaire</th>
<th>Mean mark of academic record of the students</th>
<th>n</th>
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</thead>
<tbody>
<tr>
<td>2018/2019</td>
<td>9.42 ± 0.07</td>
<td>7.73 ± 0.06</td>
<td>78</td>
</tr>
<tr>
<td>Academic year</td>
<td></td>
<td></td>
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<tr>
<td>2017/2018</td>
<td>8.3 ± 0.12</td>
<td>7.72 ± 0.8</td>
<td>88</td>
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<tr>
<td>Academic year</td>
<td></td>
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<td></td>
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<tr>
<td>Non-cooperative method</td>
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Distribution of the marks of the questionnaire in 2018/2019 and 2017/2018
Case study and problem-solving

• Active participation of the students in the group discussion.

• Discussion about the histological alterations of the cases studied and problem-solving. Assessment of pathological conditions.

• Future analysis: improvement of the vertical integration with the Anatomical Pathology subject (3º course).
• The students correctly understood the relation between the physiological and histological changes of the female reproductive system.

• Our results reveal an improvement of the teaching-learning process, although the impact of the case study and problem-solving activity should be completed in the future.

• Future analysis for the impact of teaching activities in the clinical subjects of the Degree in Medicine should be performed, thus, analyzing vertical integration.
THANKS