

Teaching Of Histological Slides Preparation Technique At First Degree Level

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ABSTRACT

Besides the skill to analyse histological slides, another important component of the teaching of histology is the preparation of the histological slides. The Bachelor degree programme of Biohealth Science, Universiti Malaya requires majoring students to learn the preparation of histological slides by employing the Haematoxylin and Eosin (Harris) (H&E) staining technique. This common histological method is taught in five practical sessions from a total of 14 practical sessions taught in a second year histology course. During the first practical session, each student starts with the abstraction of a chosen sample. This is immediately followed by fixation of the sample by immersion in 10% formalin. Next few weeks would involve dehydration process of sample in a series of alcohol with increasing concentration and paraffin infiltration (2nd week), paraffin tissue embedding (3rd week), tissue sectioning and mounting of tissue sections onto slides (4th week) and finally staining (5th week). Haematoxylin will stain the nucleus bluish purple color while Eosin will stain the cytoplasm pinkish red. Eventually, cover slips are mounted onto the surface of the stained sections using Canada Balsam as medium. Each of the session is completed within a 3 hours teaching practical session with a group of facilitators assisting when necessary. Some of the activities are carried out in groups while some are performed individually by each student. The slides prepared are evaluated with feedbacks given so as to enable the students to use this acquired hands-on laboratory skill immediately in final year research projects or during industrial training in suitable laboratory.