

MAREK'S DISEASE

Slide study set # 26

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1. Abstract and scope

Marek's disease virus (MDV) is able to induce a variety of syndromes and pathological manifestation in chickens. Because of its economic impact, the development of lymphomas in nerve and viscera is the pathological feature that has received the greatest attention. Nonetheless, there are other syndromes associated with the replication of MDV such as transient paralysis (TP), and lymphodegenerative syndromes, that occur independently of the development of lymphomas and are also addressed in this slide set.

The aim of this study set is to assist students and clinical veterinarians in better understanding the pathology and pathogenesis of the different syndromes induced by MDV in the chicken. To accomplish this purpose, this slide set provides a collection of images covering the pathological manifestations induced by MDV. Each image is explained in the figure legend. In addition, further information can be found in the complementary text where there are multiple cross references to the images.

In this slide set pathology induced by MDV is divided into inflammatory and neoplastic types. Neoplastic lesions evolve in most cases from inflammatory lesions, and therefore differentiation can be extremely difficult in borderline cases. Nonetheless, differentiation is important, especially for diagnostic purposes, and this work will provide useful criteria to establish the nature of the lesions.

All pathological changes associated with MDV infection have been included in this study set. However, some of the pathology induced by MDV is only evident under laboratory conditions and has no economic impact. An attempt is made to distinguish those syndromes that are commonly seen in the field from those that are mainly reproduced under laboratory conditions. Also, limited examples from MDV infection in species other than chicken (i.e. quail and turkey) are included. The basis for a differential diagnosis between avian lymphomas is not addressed in this study set since this is the subject of another AAEP slide set.

2. Introduction

Marek's disease (MD) is generally defined as a lymphoproliferative disease of chickens induced by an alpha-herpesvirus^{11,34}. The clinical and pathological manifestations of MD, however, have changed since the time MD was first described³². Initially MD was

4. Lymphodegenerative syndromes



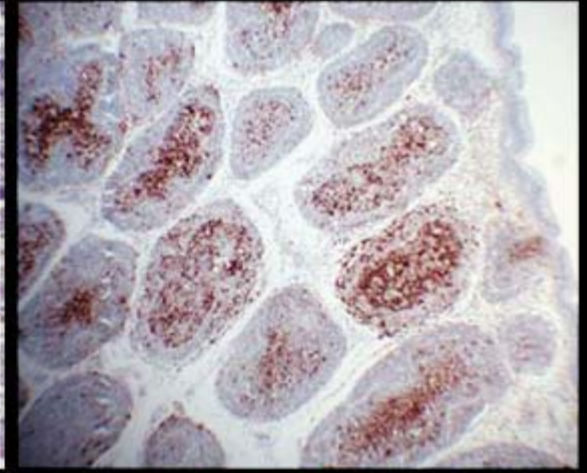
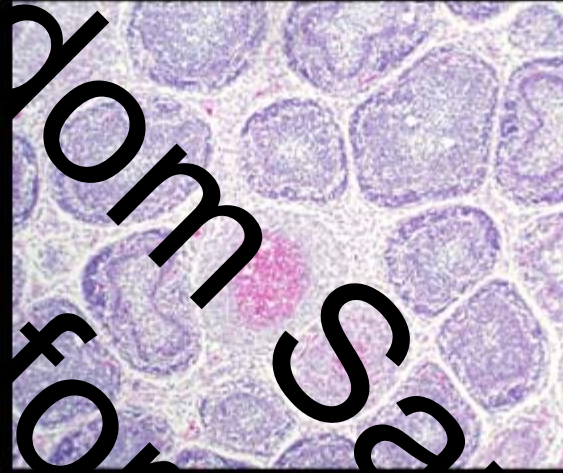
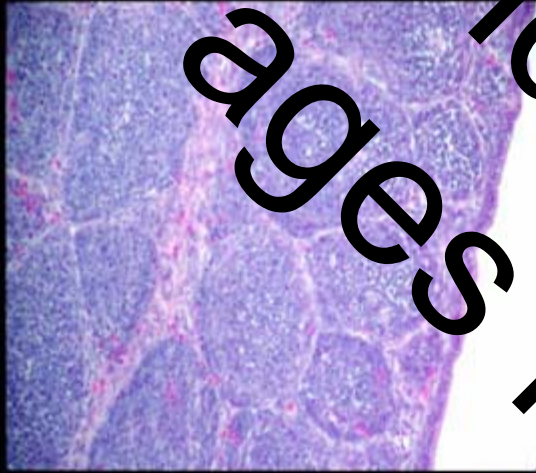
5. Lymphodegenerative syndromes

H&E

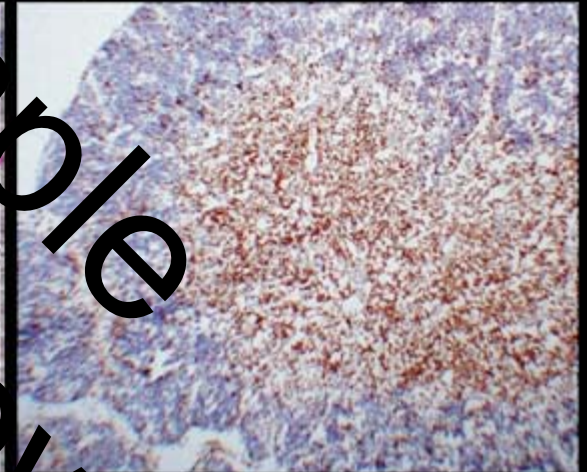
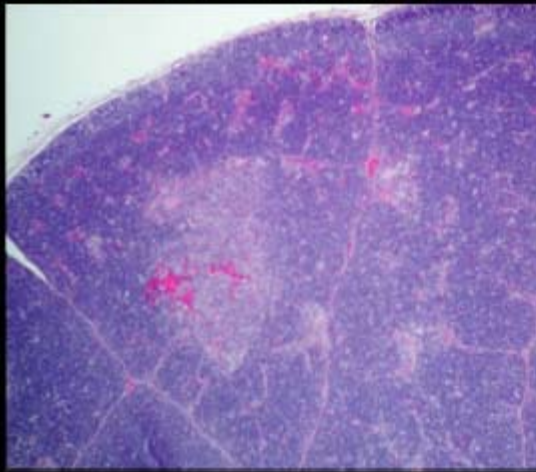
H&E

Immunohistochemistry
(pp38)

Bursa



Thymus



Normal

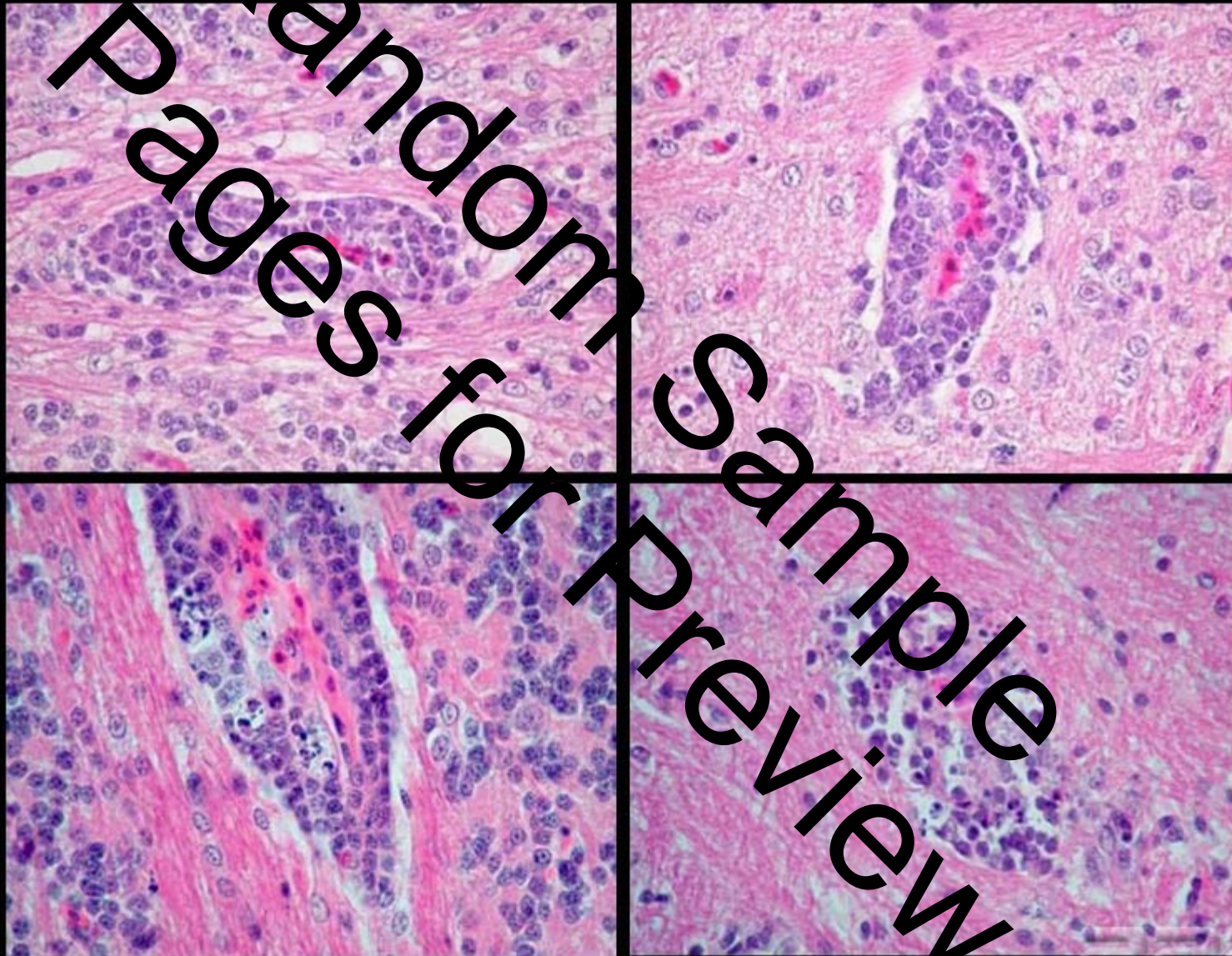
Lymphodegenerative syndromes

EBAP

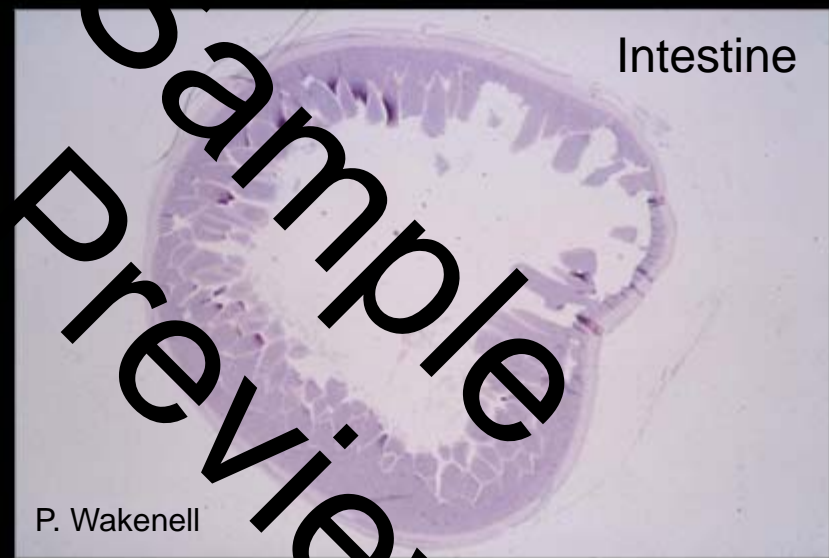
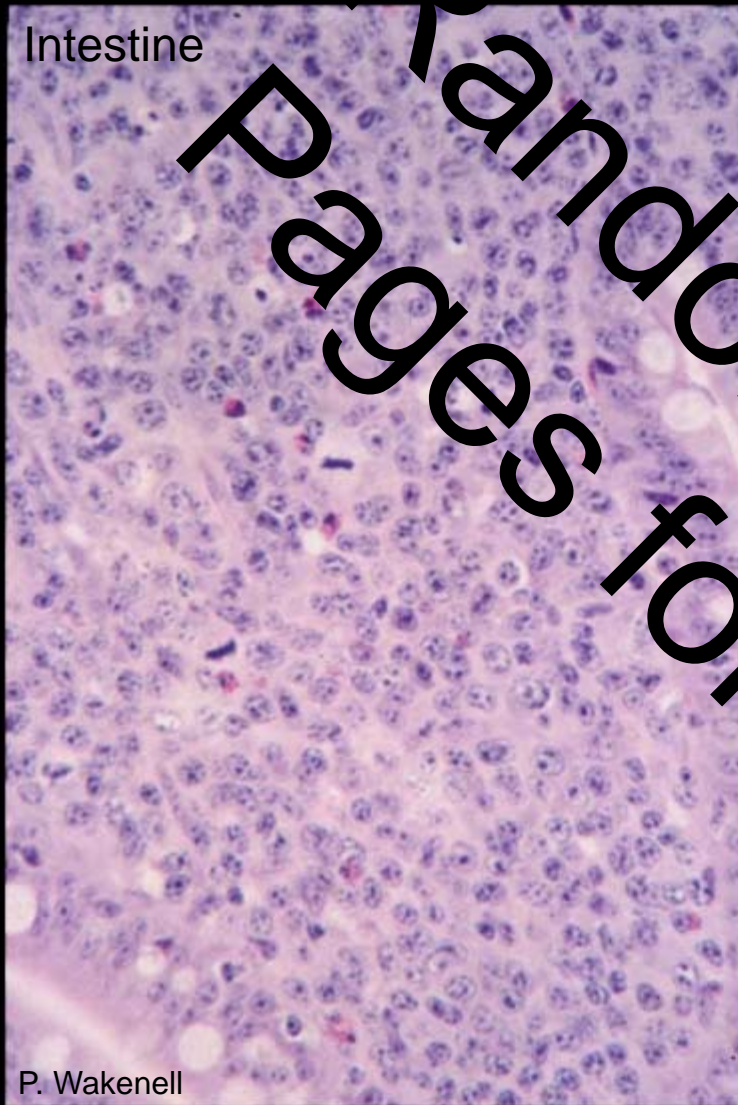
6. Transient paralysis (clinical signs)



7. Transient paralysis (brain)



36. Marek's disease in quails



Visceral lymphoma (H&E)