Creating a Web Based Ophthalmic Pathology Course Using Annotated Virtual Microscopy Slides

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Introduction

• Virtual microscopy was originally used as a way to post and transmit microscope images over computer networks allowing clinical collaboration among colleagues across geographical locations.
• Virtual microscopy is now being used as an educational tool in the teaching of pathology in a variety of settings.
• With the synthesis of microscopy and digital technologies, it is now possible to achieve image resolution approaching what is seen under a microscope.
• We are developing a comprehensive, web based database of ophthalmic pathology slides with instructive annotations that provides an educational experience simulating viewing pathology slides under a microscope.

Methods

• Ophthalmic pathologists from various universities contributed slides to this effort under the auspices of the American Association of Ophthalmic Pathologists (AAOP).
• Using the Aperio© slide scanner a library of virtual ophthalmic pathology images with all the functions of a laboratory microscope was created.
• After the glass slides were converted into a digital format the images were stored on a virtual microscopy website (www.slidehosting.com).
• The slides include descriptive annotations that will help the user identify and understand pertinent pathologic findings.
• Residents from contributing programs were surveyed for feedback regarding educational value of the website.

Results

• The ophthalmic pathology virtual microscopy website has been developed at www.slidehosting.com. Access to the site can be obtained utilizing username “aaopath” and password “aperio”.
• One hundred and fifty five slides have been posted including representative slides from the conjunctiva, cornea, eyelid, glaucoma, nasolacrimal sac, orbit, and uveal tract.
• Annotations and additional slides are continually being updated and added to the site in order to create a comprehensive virtual microscopy resource for ophthalmology education.

Conclusion

• Virtual pathology is a useful educational tool for the teaching of ophthalmic pathology.
• We have created a new web-based educational tool for the teaching of ophthalmic pathology.
• The website continues to be expanded and updated to create a standard tool for ophthalmology and pathology training.

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