SOFTWARE REVIEWS


Radiologic Anatomy was designed for self-study and reflects a "student's perspective." It presents basic normal anatomy as depicted by diagnostic images. Most of the anatomical structures are demonstrated on more than one film so you can see how the structure appears in different projections and modalities. For almost all structures, there is a corresponding image from a cadaver or model to help make real comparisons. It is targeted toward medical students and other health care professionals who need to understand anatomy and imaging.

There are at least three ways to approach navigating through the program: you can systematically go through each film, one structure at a time, by accessing the "Radiographs" list; you can select topics within each body region and study the structures sequentially; or you can select "All Questions" in the self-evaluation mode.

Within each region, the radiographs are arranged in a logical progression, starting with plain films, moving through computed tomography and magnetic-resonance imaging (MRI), and ending with angiography and other special contrast studies. Each structure is part of a specific topic area. All structures belonging to a given topic are listed together for easy reference. Whenever a structure is selected from a topic list, the program will limit subsequent browsing to that topic area. The "Quick Reference" and "Self Evaluation" modes are also organized around these topical areas to create a single consistent approach throughout. The "Correlation" topics include radiologic techniques, gross anatomy, and radiologic abnormalities.

The self-evaluation questions are created on the fly by selectively hiding the name or location of each structure. Immediate feedback is given with every right or wrong answer to enhance learning. At the end of each "quiz," the student has the option of reviewing any right or wrong answer in the context of related structures and images.

The design allows for some modification by instructors to tailor the program to specific needs. Self-administered exams may be used by the student for instructional purposes, or scores may be saved for summative evaluation by the course director. Radiologic Anatomy is written in the HyperCard programming environment. Visual and textual information is presented on cards, which are grouped into stacks. HyperCard has the ability to link the information on one card to related information on other cards.

Special features include radiologic technique correlations with video segments highlighting equipment and positioning, anatomical correlations with color photographs from cadaveric dissections, and clinical correlations describing the radiographic appearance of common pathological conditions. Included in the site license are an Instructor Tools stack for customization.

Future developments are planned for release in August 1995. The forthcoming 4.0 version of Radiologic Anatomy will be produced in a CD-ROM format. The new version will replace video clips from the earlier version with QuickTime movies, as well as bit-mapped images for high resolution graphics. Both the Macintosh and Windows versions will be distributed on the same CD-ROM. This new one-screen platform will eliminate the need for a videodisc player and second monitor.

Former versions of Radiologic Anatomy did not include neuroanatomy. The 4.0 update will incorporate multiplanar views of the brain and spinal cord, completing images for the entire human body. MRI images will be presented from three perspectives: coronal, sagittal, and axial. A comprehensive neuroanatomy component is planned for version 4.1.

New pricing is on the horizon for the CD-ROM version. Individual copies of the program will remain at $2,000.00 apiece, and the site license will still cost $12,900 for fifteen copies. Those institutions that originally purchased a site license will receive the CD-ROM version free of charge. Forty-five different medical schools have acquired Radiologic Anatomy to date. For schools requiring the program in the curriculum, a $99.00 student version will be made available. With the current videodisc version, site licensees may distribute the software free of charge to enrolled students.

In comparison to other anatomical software programs, Radiologic Anatomy is relatively easy to use and provides a fundamental knowledge base. It covers radiologic anatomy in a comprehensive manner. If your institution is fortunate enough to afford the site license, students appreciate the ability to load it on their own computer and reference the database throughout their medical education program.

Diane Futrelle
Medical Center Library
Duke University
Durham, North Carolina