Digital internet-based ophthalmologic image databank

Béla Török, Hugo Niederberger, Z Somorjai & Peter Bischoff

OBJECTIVE: To manage an ophthalmological image database easily and rationally. MATERIALS AND METHODS: Fundus, macro and simultaneously recorded Fluorescein and ICG angiography images were digitized and archived using personal computers and UNIX workstations. Image data were written to CD-recordables. The CD-s with image information were stored in a jukebox-server. On demand image information was converted to dynamic hypertext markup language (html) with a WWW-server. Information stored on the servers could be observed with browser programs running on client computers connected to local area network. The communication with ophthalmologist working outside our hospital was realized by electronic mail. RESULTS: Different platforms (PC, Mac, workstations, etc.) and operating systems (Windows 3.x, 95, NT, MacOS, UNIX, etc.) can be used as clients. The communication with the system is accomplished by standard internet programs (Internet Explorer, Netscape Navigator, etc.). Thanks to the intuitive graphical user interface, no special computer knowledge is required to retrieve the stored data. CONCLUSION: Our digital image database has many advantages over a conventional image archive: it is round the clock available, images can be stored and copied without loss of quality, digital images can be easily integrated in other applications, it can be used without special computer knowledge, it is expandable and compatible with all contemporary computer platforms.