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Dear Editor: I write about an impending serious crisis in neuroradiology. Success often breeds its own problems. During the last decades, the advent of CT and MR imaging and of CT and MR angiography have obviated the need for more invasive testing such as catheter angiography, myelography, and pneumoencephalography. However, these invasive tests required the continued presence of neuroradiologists who performed the procedures, supervised the filming to be sure that adequate films were obtained, and later interpreted and reported the results. These tests required input and close interaction with neurologic and neurosurgical clinicians. Samuel Wolpert and I have written about the need for this clinician-neuroradiologist interaction to ensure proper neuroradiologic studies (1, 2). Neuroradiologists should be treated as consultants, not as technicians.

Now, however, technicians take scans. The presence of neuroradiologists is not absolutely mandated during scan acquisition. Neuroradiologists are often located in areas away from the scanners on PACS. Because scanning is noninvasive and any doctor is allowed to order them, many more neuroradiologic procedures are performed than in the past and many more images must be reviewed and reported. Neuroradiologists are often distanced from the planning and supervision of the data acquisition and have much less time to interact with clinicians to plan appropriate studies and to supervise scanning to be sure adequate images are obtained in relation to individual cases. Many neuroimaging scans are performed in imaging centers, often at a distance from the clinicians who order the procedures, making rapid communication between neuroradiologist and clinician difficult. Information acquisition should be a sequential process. Information acquisition should be a sequential process so that the selection of the next study depends on the results of the previous images.

When this does not occur, often inadequate studies are obtained. For example, MR angiograms taken to study the vertebral arteries often do not show the distal extracranial and/or proximal intracranial vertebral arteries. A patient whose preliminary study suggests the likelihood of a dural sinus occlusion may not undergo MR venography while in the unit. Intracranial MR angiograms that suggest a proximal ICA lesion in the neck may not trigger a more complete MR angiographic study. Routines and protocols are often followed by technicians rather than by experienced neuroradiologists who tailor the studies to problems in individual patients. Clinical neuroradiology should be structured in such a manner to allow the radiologist to perform as a true consultant. With the increasing demands and workloads on radiology departments, the need to train more neuroradiologists and to incorporate increasing clinical training in the neurosciences should be considered.

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References

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