



Tracing the Roots of Neurocritical Care

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Not long ago, a reviewer, commenting on a submitted paper of mine, wrote “the number of references from the previous century could be reduced,” to which I answered with astonishment, “I am from the previous century.”

The prior century is of great interest for neurointensivists, neurosurgeons, and neuroanesthesiologists because it was arguably one of the most productive periods in neurology. Historically, it will be seen as a period of greater understanding of mechanisms in acute neurologic conditions.

One could argue that the history of the neurosciences—a word that only emerged in the mid-1960s in manuscript titles—can be superficially seen as several centuries of anatomic discoveries, and we should be in awe of Wren’s drawings in Thomas Willis *Cerebri anatome: cui accessit nervorum descriptio et usus* (Fig. 1, [1]). On the other hand, physiologic (mechanistic) discoveries were plentiful in the twentieth century, and in fact, the Nobel Prize in Medicine started to include work in physiology soon after the turn of the century. Much was produced in laboratories—not the least by Harvey Cushing working in Kocher’s

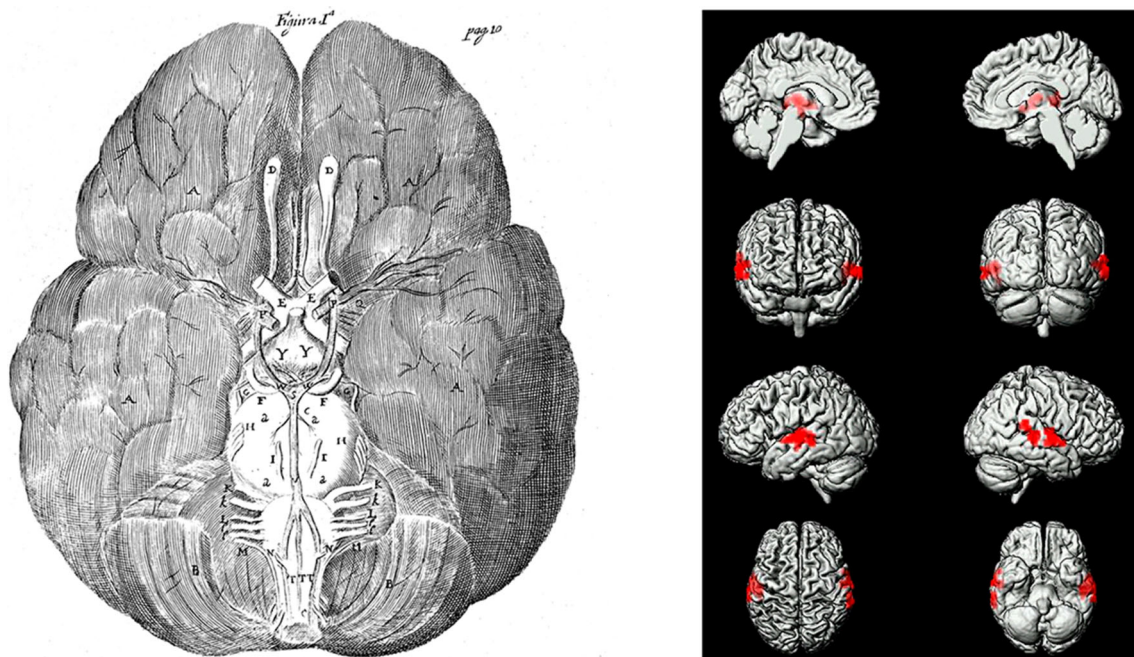


Fig. 1 From dissection of the brain by Willis, *Cerebri anatome* (the anatomy era) to functional MRI (the neurophysiology era)

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laboratory. Still, for some of us, these animal experiments with killing of multiple species such as rats, rabbits, horses, sheep, cats, and monkeys remain a contentious legacy. Understanding of neurophysiology dramatically improved, and now we should be in awe of functional MRI showing us more than we ever thought we would be able to visualize (Fig. 1).

The delineation of specialties took some time. The anatomic clinical approach of Charcot in the late 1800s was associated with therapeutic nihilism—disorders were intractable or self-limiting. At that time, neurology and psychiatry was a combined field—almost by necessity—because, for example, neurosyphilis was endemic causing paralysis, insanity, and epilepsy. Neurology gradually subspecialized but much later, and the same can be said about acute neurology or neurocritical care.

We have to know the past, and to some degree, knowing history of acute neurology empowers us. I am pleased the Journal recognizes the need for historical work. *Neurocritical Care through History* started in the Journal with a celebration of the centennial of Guillain–Barré syndrome [2] and marked the beginning of a series of historical vignettes on important milestones in our specialty. Of course, this series, *Neurocritical Care through History*, describes observations that occurred before neurocritical care became a *bona fide* specialty, and most of the work was done by neurosurgeons, anesthesiologists, neurologists, and other scientists devoted to bench work [3].

In the next few years, the Journal will place one vignette in each issue to cover a wide clinical spectrum. Some of the material is superficially familiar, but these vignettes will unearth original material previously unknown to most readers. In choosing topics, I have selected areas where information was missing or I was personally curious about its origin. Medicine (and certainly neurology) is full of terminology, and the “backstory” of how terms became established designations is often surprising. We take for granted so many things we do every day without knowing their source [3]. We can learn about “legendary” work and persons in the past, their achievements, and their failures. Many times, I have found the inspiration for future studies in older work showing the drudgery required to understand disorders and mechanisms. The conceit of this new series of historical papers, therefore, is to incentivize the readers.

References

1. Willis T. *Cerebri anatome: cui accessit nervorum descriptio et usus*. London: Flesher, Martyn, Allestry, and Pauli; 1664.
2. Wijdicks EFM. Neurocritical care through history: Guillain–Barré syndrome. *Neurocrit Care*. 2016;25:288–92.
3. Wijdicks EFM. *First famous papers for the neurointensivist*. New York: Springer; 2013.