Commentaries

Introduction To Geriatric Neurology Issue

Age takes a toll. Mathematicians’ best work is behind them by their late twenties, if not earlier. Chess champions are never elderly. No athletic records are held by the elderly. Yet some people get wiser. The great novels are products of skills honed with time, wisdom and experience, and, clearly a different sort of creativity than required in mathematics and chess. Our brains start to lose neurons in our twenties. As an elderly Houston Merritt, MD, the author of one of the standard American neurology texts, and a giant of twentieth century neurology, once commented, "when it’s very quiet, I can sometimes hear the splash a dying neuron makes as it falls into the lacunar lakes in my brain.”

In the 1930’s the great British neurologist, MacDonald Critchley, published a series of papers pointing out that aging produced, as a normal consequence, many of the features we identify as pathological in Parkinson’s disease. Yet these changes are not considered pathological. Perhaps they will be sometime soon. These “normal” changes often produce clinical challenges for physicians trying to distinguish pathological from normal. Essential tremor in an elderly person, for example, can be indistinguishable from Parkinson’s disease, but the prognosis and treatments are quite different. Gait disorders in an elderly person with widespread arthritis, multiple joint replacements and diabetic neuropathy, are often impossible to accurately classify, other than with the highly accurate designation, "multifactorial,” which may, or may not be helpful to all concerned.

In the course of my 25 years of practice I have personally witnessed the astounding increase in the number of elderly and very elderly patients I treat. In a recent review I learned that I have cared for 43 patients with Parkinson’s disease over the age of 90! Twenty years ago I probably hadn’t ever seen a PD patient of that advanced age. As we all know, this is a mixed blessing. In Gulliver’s Travels, one of the lands Gulliver visits has a small group of people who are immortal. He thinks this a great miracle but is informed that it is considered a curse because the people are not free of the diseases of aging, thus becoming crippled and demented, and never granted the freedom of death.

In this issue we grapple with the neurology of aging. Excepting pediatricians, we all deal with the elderly, and neurological problems become, like all other problems, increasingly common. Many non-neurologists are neurology-phobic and, because neurology used not to be a treatment oriented discipline, often tend to overlook neurologic problems, or else consider them part of the process of normal aging (“once you’re 80 everyone has tremors or falls down once in a while”). In this issue we hopefully are "user friendly,” and help you in your day to day care of the elderly.

These articles are summaries of a day long course on geriatric neurology given in Providence on Nov 3, 2007.

— JOSEPH H. FRIEDMAN, MD

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Some Thoughts On Ethical Guidelines for the Neurologically-impaired Elderly

There is a widely accepted Inuit tale [denied as factual by many anthropologists] that when their frail elders reach a point of senility requiring active nursing care, or when the food supply of their community becomes perilously low, the demented elders are reverently placed upon an ice-flow to drift away into the Eskimo equivalent of oblivion.

Two current social and geophysical realities have altered this aboriginal scenario: first, the intrusion of earnest ethical debate regarding the extent and merit of care for the elderly who are neurologically impaired [such care ranging from the very best technologically to utter abandonment]; and second, with the indisputable acceleration of global warming, there is the diminution in the number and survivability of arctic ice-flows.

There is little debate that a patient who is both elderly and neurologically impaired is effectively marginalized, certainly by contemporary society – and sometimes even by members of the healing community. Many patients with organic disabilities have a way of rehabilitating themselves; less so, though, for those with the loss of neural or cognitive function, thus making the elderly who are paralyzed or the elderly who are demented vulnerable to a more stringent standard of appraisal – outliers, perhaps – in the calculus of care for the elderly American citizen.

In an appraisal of moral norms and moral hopes in the field of geriatric neurology, there are substantially more questions than there are confident answers or even flexible guidelines. Geriatric neurology, particularly as it pertains to the demented elderly, presents an array of incorrigible problems.
readily distinguishable from the other sub-disciplines of medicine by the frequent use of such alien words as triage, economic utilitarianism, equity, social justice, palliation, hospice care and the right to die; and the use of such needlessly inflammatory words as euthanasia and "pulling-the-plug".

An ethical consideration - with any medical dilemma involving the elderly - certainly demands that a few basic questions be confronted:

1. Does the patient's age, per se, play any conscious role in determining the employment [or abandonment] of any therapeutic intervention? Should it? Is there such a thing as age-related rationing of institutional care or medical interventions?

2. Rewording the question, does age-conscious triage become operative in elderly, neurologically impaired patients more so than in orthopedically-impaired elderly?

3. Are stroke victims, beyond the age of 80, viewed differently than dementia victims of similar age? Rewording this question: Does future prognosis play a role in determining present medical intervention? Does the projected lifespan for the patient influence the type and intensity of the therapy?


5. Are there occasions when palliation replaces active intervention? And what are the thresholds when active intervention gets replaced?

6. When is the patient's plea to die listened to and acted upon?

Before confronting these questions, let us consider a bit of local history as well as certain demographic verities. In 1984, Rhode Island's General Assembly convened a task force assigned with the problem of determining the extent to which patients with enduring dementia imperiled the health care system of the state. Our first task was to define the clinical state of dementia [using standard criteria of duration of dementia, type and extent of memory loss, degree of disorientation, loss of social judgment, insight and the capacity to fulfill the minimal tasks of daily living]; then to survey each of the 107 registered nursing homes in the state to determine how many of their residents could be identified as organically demented; and finally, to extrapolate from these data to estimate the total number of the demented within the state [in hospitals, nursing homes and private homes]. We did not distinguish between dementia of the Alzheimer's type, multi-infarct dementia, Lewy body dementia or other dementias such as the heritable ones as those associated with Huntington's disease.

We concluded, conservatively, that in 1985 there were about 10,000 persons with dementia in a state population of about one million souls [about 1% of Rhode Island]. We presented our data to the State legislature. The first response to our oral presentation was: "Never heard of Alzheimer's disease. What is it? Something new like AIDS?" Our demographic data—and our projections into the 21st Century—were treated with a combination of wry amusement and skepticism. And, accordingly, our recommendations were largely ignored—although the State police did take to heart our recommendation that the police be formally sensitized and educated in distinguishing between a demented elderly wandering the streets and an inebriated person wandering the same thoroughfares.

Years later the report was reviewed and our recommendations [regarding the assignment of state hospital beds for those with advanced dementia] were accepted.

There is little debate now that organic dementia is more than a medical problem; more than a public health problem draining much of this nation's health-care budget; and certain a compelling nightmare for those responsible for planning for this nation's future medical needs.

In 1950, 4% of this nation's GNP was invested in health care. By 1994, this had risen to 14%; it is now verging upon 20% - and rising. A decade ago this government was spending, on average, $14,000 per year on each elderly American under the Medicare program; it is now approaching $20,000. And as the nation – particularly its old-old segment – grows in number, and as the number of Americans burdened with dementia of the Alzheimer type increases exponentially, the cost of protecting and caring for these encumbered patients will grow at an alarming rate. Finally these staggering costs will overwhelm the humanitarian beliefs in this country and—baring a medical miracle in discovering ways to prevent or cure the organic dementia—the rationing of care will become inevitable.

What may we expect in an elderly person with long-standing dementia? At best a stabilization of the sense of personal identity and cognitive awareness. Visitors, whose visits tend to be brief and cursory, may comment that they experience no communication with their sick relatives, that they are no longer recognized by the demented patients and view them as one step removed from a persistent vegetative state. Nursing aides however, may attest to a measurable degree of communication as well as preservation of some "selfness." To exploit a common cliche, is the cognitive cerebrum half-full or half-empty?

Despite the notable advances in biotechnology in recent years, and despite some unsubstantiated claims that the progress of Alzheimer's disease may be slowed by certain medications, the professional care of such patients remains largely in the domain of care-takers such as nurses. Physicians continue to play an identifiable role in initiating more aggressive therapies for such complications as decubitus ulcers, opportunistic infections and renal or cardiopulmonic failure. What guidelines may then be established for a disease that is both progressive—often relentlessly so—and without effective therapy?

Certainly, comfort measures, good nursing, pain-control if needed and scrupulous attention to hygienic needs. But beyond these interventions, what then? Specifically, when in the course of this ailment might discussions be begun about a regime confined to palliative care? Daniel Callahan has suggested three standards to observe in such trying situations:

1. No one should, in the modern world, have to live longer in the advanced stages of dementia than he or she would have in a pre-technologic era.

2. The likely deterioration in individuals with advanced dementia should lead to a shift in the usual standard of treatment: that of stopping rather than continuing or extending treatment.
3. For the medical profession, there is as great an obligation to avoid a lingering, painful or degrading death as there is to promote health and life.

Which avoids the crucial question: What clinical features forewarn the attending physician that the time has arrived to warrant cessation of interventions beyond those designed for comfort, cleanliness, adequate hydration and freedom from pain? The single criterion continues to be whether there is any residual sense of conscious selfness in the patient, any awareness—even if only episodic—of himself or herself. Just as family members, visiting briefly, may observe nothing beyond a vegetative existence, so too with the physician visiting for a few moments. The insight into the patient's sense of social identity may come, more commonly, from the nurse or aide who feeds, bathes and interacts regularly with the patient.

The thoughts, wishes and religious observances of the family, the views of the concerned clergy must be listened to, but not heeded blindly. The wishes of the patient remains paramount, whether expressed in an advance directive, in a will or in any reliable document; or, expressed orally during his or her current institutionalization.

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We, as a society, must confront the realities of a near-future in which an avalanche of impaired elderly with dementia will inundate the health care industry and its inpatient institutions, places ranging from nursing homes to tertiary care hospitals.

Our health-care professions are about to be overwhelmed by a tragedy of human aging called dementia. We assemble earnest papers such as this, make honorable declarations, admonish ourselves for alleged insensitivities, abjure for our past negligences, pay obsequience to the ethical standards of our vocations, recall oaths to do no wrong, identify the physical needs of the demented, decry the insensitive insurance industry for wanting to set explicit thresholds for triage— but rarely do we listen to the secular voices of the demented. Let me end with a poem by Maya Angelou, a poem that says so much more than any powerpoint presentation might convey:

The print is too small, distressing me.
Wavering black things on the page.
Wiggling polliwogs all about.
I know its my age.
I'll have to give up reading.

The food is too rich, revolting me.
I swallow it hot or force it down cold.
And wait all day as it sits in my throat.
Tired as I am, I know I've grown old.
I'll have to give up eating.

My children's concerns are tiring me.
They stand at my bed and move their lips.
And I can't hear one single word.
I'd rather give up listening.

Life is too busy, wearily me.
Questions and answers and heavy thought.
I've subtracted and added and multiplied.
And all of my figuring has come to naught.
Today I'll give up living.

— STANLEY M. ARONSON, MD

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