# What Is a Geriatric Syndrome Anyway?

Jonathan M. Flacker, MD, Division of Geriatric Medicine and Gerontology, Emory University School of Medicine, Atlanta, GA, USA.

The term "Geriatric Syndrome" is commonly used but ill defined. In publications, authors claim that all sorts of conditions are a "Geriatric Syndrome", including, but not limited to, delirium,<sup>1</sup> dementia,1 depression,2 dizziness,3 emesis,<sup>4</sup> falls,<sup>1</sup> gait disorders,<sup>1</sup> hearing loss,<sup>1</sup> insomnia, 1 urinary incontinence, 1 language disorders,1 functional dependence,<sup>5</sup> lower extremity problems,<sup>6</sup> oral and dental problems,6 malnutrition,1 osteoporosis,<sup>1</sup> pain,<sup>1</sup> pressure ulcers,<sup>1</sup> silent angina pectoris,<sup>7</sup> sexual dysfunction,<sup>6</sup> syncope<sup>6</sup> and vision loss.<sup>1</sup> Can this be possible? Can any condition commonly encountered in older adults be a "Geriatric Syndrome"?

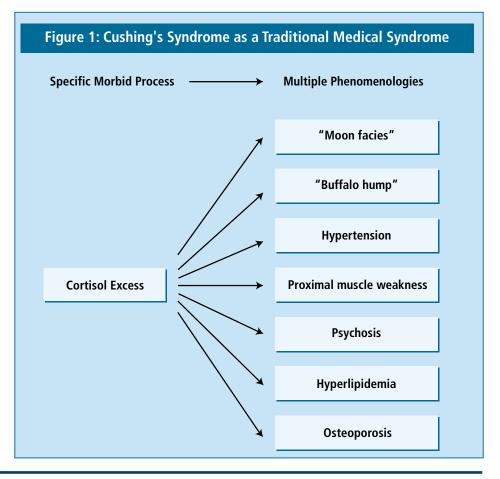
## The Origins of "Syndrome"

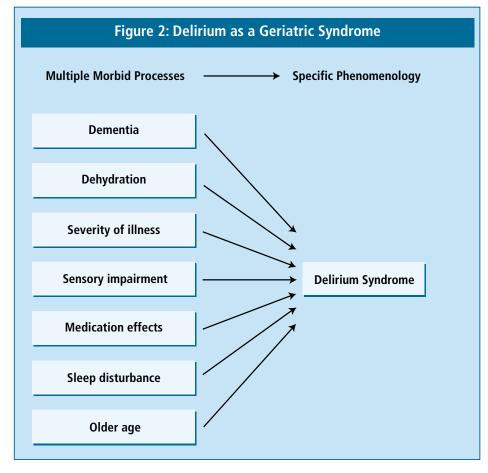
The word syndrome seems to have appeared in an English translation of Galen in about 1541.8 Derived from the Greek roots "syn" (meaning "together") and "dromos" (meaning "a running"), this term generally refers to "a concurrence or running together of constant patterns of abnormal signs or symptoms".8 The term syndrome "has as its philosophic basis not specific disease factors, but a chain of physiologic processes, the interruption of which at any point produces the same ultimate impairment of body function".9 Cushing's Syndrome is a good example of a traditional medical syndrome wherein disruption of a single physiological process (excessive cortisol secretion) results in multiple common phenomenologies (Figure 1). These phenomenologies may manifest as general signs (hypertension, moon facies, truncal obesity), endocrine problems (impaired glucose tolerance, hyperlipidemia), skin problems (plethora, hirsutism, acne, striae), skeletal manifestations (osteopenia, myopathy) and psychiatric disturbances (depression, psychosis).

### The Geriatric Syndrome

The term "syndrome" when applied to geriatric conditions has been at odds with the traditional use of "syndrome" from earlier times. One early definition of geriatric syndromes is conditions "experienced by older-particularly frailpersons, [that] occur intermittently rather than either continuously or as single episodes, may be triggered by acute insults, and often are linked to subsequent functional decline". 10 More recently, geriatric syndromes have been viewed as conditions in which "symptoms... are assumed to result not solely from discrete diseases but also from accumulated impairments in multiple systems"3 and develop when the accumulated effect of these impairments in multiple domains compromise compensatory ability.<sup>5</sup> Both definitions are a significant departure from the traditional use of syndrome. The term syndrome as applied to geriatric conditions is thus the reverse of the traditional usage because the outcome is a single phenomenology rather than a spectrum of symptoms and signs, and results from numerous rather than a single disruption. In geriatric syndromes, it is multiple abnormalities that "run together" to cause a single phenomenology. For example, in delirium, the cumulative effects of multiple contributors (impaired cognition, severe illness, old age, etc.) result in the delirium phenomenology (Figure 2).

Applying the term syndrome to multifactorial conditions of older adults is misleading to those thinking in traditional terms, since there will be no spe-





cific abnormality for the care provider to identify and potentially treat. This can lead some to conclude that a geriatric syndrome is "a usual concomitant of aging; that there may be no specific disease to identify, but instead undefinable erosions of mood or function".11 The result is an unfortunate sense of a frustrating condition with no clear approach and no likelihood of improvement. In this frustration, the care provider may miss the important point that, in multifactorial health conditions of older adults, there are usually multiple opportunities to intervene to improve the symptomatic issue for the patient.

#### Solutions

One resolution would be to dispense with the term "syndrome" for problems of older adults and to create a new term. Because multiple factors precipitate many health problems of older persons, the Greek root *koinoneo* (meaning, to do in common with, share, take part in a thing with another) seems appropriate. Thus,

the term "geriatric synkoinon" could replace geriatric syndrome.

Another approach would be to create a greater appreciation of the specific meaning of syndrome when applied in a geriatric medicine context. This requires precision of expression and persistence by teachers and practitioners of geriatric medicine. Specifically, conditions would be defined as geriatric syndromes if they are multifactorial, occur primarily in older persons, result from an interaction between identifiable patient-specific impairments and identifiable situationspecific stressors, and interventions directed toward ameliorating the contributing factors result in a reduction in the incidence or severity of the condition in question. Delirium, falls and incontinence could be accepted as geriatric syndromes by this definition. Other conditions might qualify as the result of more research. Many continue to think wrongly that geriatric conditions arise from "undefinable erosions of mood or function". As teachers and practitioners

of geriatric medicine, it is our job to change this impression, and the precise use of language regarding "geriatric syndromes" is a good place to start.

#### References

- Reuben DB, Yoshikawa TT, Besdine RW. Geriatrics review syllabus. 3rd ed. New York: American Geriatrics Society, 1996.
- Kennedy GJ. The geriatric syndrome of latelife depression. Psychiatr Serv 1991;46:43–8.
- Tinetti ME, Williams CS, Gill TM. Dizziness among older adults: A possible geriatric syndrome. Ann Intern Med 2000;132:337–44.
- 4. Rousseau P. Emesis: Another geriatric syndrome. J Am Geriatr Soc 1995;43: 836.
- Tinetti ME, Inouye SK, Gill TM, et al. Shared risk factors for falls, incontinence, and functional decline: Unifying the approach to geriatrics syndromes. JAMA 1995;273:1348–53.
- Jahnigan D, Schrier R, editors. Geriatric medicine. Cambridge, MA: Blackwell Science, 1996.
- Gordon M. 'Silent angina': A geriatric syndrome? Can Med Assoc J 1986;135: 849–51.
- Durham RH, editor. Encyclopedia of medical syndromes. New York: Harper and Brothers, 1960.
- 9. Himsworth HP. The syndrome of diabetes mellitus and its causes. Lancet 1949;1:465–72.
- Reuben DB. Geriatric syndromes. In: Beck AC, editor. Geriatrics review syllabus. 2nd ed. New York: American Geriatrics Society, 1991:117–231.
- Drachman DA. Occam's razor, geriatric syndromes, and the dizzy patient. Ann Intern Med 2000;132:403–5.