



Neurology: Central nervous system

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Neurology is the branch of medicine concerned with the study and treatment of disorders of the nervous system. The nervous system is a complex, sophisticated system that regulates and coordinates body activities. It has two major divisions: Central nervous system: the brain and spinal cord, Peripheral nervous system: all other neural elements, such as eyes, ears, skin, and other "sensory receptors".

Neurosurgery must attract the best and the brightest. Women now constitute a larger percentage of medical school classes than men, representing approximately 60% of each graduating medical school class. Neurosurgery is facing a potential crisis in the US workforce pipeline, with the number of neurosurgeons in the US (per capita) decreasing.

The number of women entering neurosurgery training programs and the number of board-certified female neurosurgeons is not increasing. Personal anecdotes demonstrating gender inequity abound among female neurosurgeons at every level of training and career development. Gender inequity exists in neurosurgery training programs, in the neurosurgery workplace, and within organized neurosurgery.

The consistently low numbers of women in neurosurgery training programs and in the workplace results in a dearth of female role models for the mentoring of residents and junior faculty/practitioners. This lack of guidance contributes to perpetuation of barriers to women considering careers in neurosurgery, and to the lack of professional advancement experienced by women already in the field.

There is ample evidence that mentors and role models play a critical role in the training and retention of women faculty within academic medicine. The absence of a critical mass of female neurosurgeons in academic medicine may serve as a deterrent to female medical students deciding whether or not to pursue careers in neurosurgery. There is limited exposure to neurosurgery during medical school. Medical students have concerns regarding gender inequities (acceptance into residency, salaries, promotion, and achieving leadership positions).

Gender inequity in academic medicine is not unique to neurosurgery; nonetheless, promotion to full professor, to neurosurgery department chair, or to a national leadership position is exceedingly rare within neurosurgery. Bright, competent, committed female neurosurgeons exist in the workforce, yet they are not being promoted in numbers comparable to their male counterparts. No female neurosurgeon has ever been president of the AANS, Congress of Neurological Surgeons, or Society of Neurological Surgeons (SNS), or chair of the American Board of Neurological Surgery (ABNS).

No female neurosurgeon has even been on the ABNS or the Neurological Surgery Residency Review Committee and, until this year, no more than 2 women have simultaneously been members of the SNS. Gender inequity serves as a barrier to the advancement of women within both academic and community-based neurosurgery.

To overcome the issues identified above, the authors recommend that the AANS join WINS in implementing a strategic plan, as follows: 1) Characterize the barriers. 2) Identify and eliminate discriminatory practices in the recruitment of medical students, in the training of residents, and in the hiring and advancement of neurosurgeons. 3) Promote women into leadership positions within organized neurosurgery. 4) Foster the development of female neurosurgeon role models by the training and promotion of competent, enthusiastic, female trainees and surgeons.

Abbreviations used in this paper: AANS = American Association of Neurological Surgeons; ABNS = American Board of Neurological Surgery; CNS = Congress of Neurological Surgeons; RRC = Neurological Surgery Residency Review Committee of the Accreditation Council for Graduate Medical Education; SNS = Society of Neurological Surgeons; WINS = Women in Neurosurgery.

There may be a patient with an obvious lesion seen in T2. FA and MD can uncover the extent of the damage even at levels above and below the lesion. In this case the extent of the decompression would be better defined, enabling better treatment outcomes for the patient.

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