

Ultrasonography (USG) in neurocritical care Prasanna Udupi Bidkar

Abstract

In the recent years Ultrasonography (USG) has emerged as a valuable tool in intensive care. It has moved successfully from radiological suite to operation theatre and intensive care unit. The main advantages of USG are as a point of care (bed-side) tool which provides vital information. It has many diagnostic and therapeutic applications in the Neurointensive care unit. The main applications of USG in Neurocritical care are as follows. In diagnosis of intracranial hypertension: Increased Optic nerve sheath diameter is a qualitative marker of raised intracranial pressure. A linear high frequency probe can be used for visualization of optic nerve. Transcranial Doppler: TCD has been used in recognition of cerebral autoregulation, diagnosis of cerebral vasospasm and as an ancillary tool in the diagnosis of brain death. USG have been found to be useful in dissolution of clot in cerebral vessels when used in conjunction with thrombolytic agents. Many patients with subarachnoid hemorrhage have cardiac dysfunction. Bed side echocardiography can be used to diagnose cardiac dysfunction. In sitting position craniotomy: Transesophageal echocardiography can be used for the detection of patent foramen ovale and monitoring of venous air embolism. Traumatic brain injury and other associated injuries: USG can be used for detection of pupillary reaction to light in patients with orbital edema. These patients can have associated injuries like pneumothorax, which can be detected by USG. Deep veinous thrombosis (DVT) monitoring: Critically ill neurological patients are at high risk of DVT. USG can be used for monitoring of DVT.

Keywords: Neuropathy; neurology; musculoskeletal diagnosis

Jawaharlal Institute of Postgraduate Medical Education and Research, India

*Corresponding author: Prasanna Udupi Bidkar

✉ prasanna.u.bidkar@jipmer.edu.in

Jawaharlal Institute of Postgraduate Medical Education and Research, India

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Caring for someone with Alzheimer's disease or another type of dementia can be a long, stressful, and intensely emotional journey. But you're not alone. In the United States, there are more than 16 million people caring for someone with dementia, and many millions more around the world. As there is currently no cure for Alzheimer's or dementia, it is often your caregiving and support that makes the biggest difference to your loved one's quality of life. That is a remarkable gift.

However, caregiving can also become all-consuming. As your loved one's cognitive, physical, and functional abilities gradually diminish over time, it's easy to become overwhelmed, disheartened, and neglect your own health and well-being. The burden of caregiving can put you at increased risk for significant health problems and many dementia caregivers experience depression, high levels of stress, or even burnout. And nearly all Alzheimer's or dementia

caregivers at some time experience sadness, anxiety, loneliness, and exhaustion. Seeking help and support along the way is not a luxury; it's a necessity.

Just as each individual with Alzheimer's disease or dementia progresses differently, so too can the caregiving experience vary widely from person to person. However, there are strategies that can aid you as a caregiver and help make your caregiving journey as rewarding as it is challenging.

Caring for a person with Alzheimer's disease or dementia can often seem to be a series of grief experiences as you watch your loved one's memories disappear and skills erode. The person with dementia will change and behave in different, sometimes disturbing or upsetting ways. For both caregivers and their patients, these changes can produce an emotional wallop of confusion, frustration, and sadness.

As the disease advances through the different stages, your loved one's needs increase, your caregiving and financial responsibilities become more challenging, and the fatigue, stress, and isolation can become overwhelming. At the same time, the ability of your loved one to show appreciation for all your hard work only diminishes. Caregiving can literally seem like a thankless task. As life expectancies increase, medical treatments advance, and increasing numbers of people live with chronic illness and disabilities, more and more of us find ourselves caring for a loved one at home. Whether you're taking care of an aging parent, a handicapped spouse, or looking after a child with a physical or mental illness, providing care for a family member in need is an act of kindness, love, and loyalty.

References

1. ABN-NANSIG Student Day 2020 [Internet]. Facebook.com. 2020 [cited 13 August 2021]. Available from: <https://www.facebook.com/events/s/abn-nansig-student-day-2020/3426078717427428/>
2. Bandyopadhyay S, Georgiou I, Bligh E et al (2021) SPICE-19: a 3-month prospective cohort study of 640 medical students and foundation doctors. *Medical Science Educator*. <https://doi.org/10.1007/s40670-021-01349-0>
3. Chari A, Jamjoom A, Edlmann E, Ahmed A, Coulter I, Ma R, May P, Brennan P, Hutchinson P, Kolia A (2017) The British Neurosurgical Trainee Research Collaborative: five years on. *Acta Neurochir* 160(1):23–28
4. Coyle C, Ghazi H, Georgiou I (2020) The mental health and well-being benefits of exercise during the COVID-19 pandemic: a cross-sectional study of medical students and newly qualified doctors in the UK. *Irish J Med Sci* (1971) 190(3):925–926

Day after day, you gift your loved one your care and attention, improving their quality of life, even if they're unable to express their gratitude.

Regardless of your particular circumstances, being a family caregiver is a challenging role and likely one that you haven't been trained to undertake. And like many family caregivers, you probably never anticipated this situation. However, you don't have to be a nursing expert, a superhero, or a saint in order to be a good family caregiver. With the right help and support, you can provide loving, effective care without having to sacrifice yourself in the process. And that can make family caregiving a more rewarding experience—for both you and your loved one.