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## ***Hypersexual Behavior Following a Stroke***

**Q.** My aunt suffered a cerebrovascular accident (CVA) recently and was transferred to a rehabilitation institute. While there, she developed some unusual behavior patterns, including using profanity, making sexual comments to other patients and her doctors, and attempting to undress in common areas. Our family did not know what to make of this behavior because she had always been "prim and proper." The therapist at the institute told us that these types of personality changes are not uncommon in patients with certain types of brain lesions. Any thoughts?

**A.** Hypersexual behavior following CVA is a very important topic, but one that is rarely discussed with stroke survivors and their families. Sexual functioning in these patients is known to be complex and multifaceted. Although cerebrovascular disorders usually result in a dramatic decrease in patients' sexual thoughts, behaviors, and activity, some patients may develop a disorder called *hypersexuality*.<sup>1</sup>

Hypersexuality is best described as an unusual increase in sexual desire or sexual activity. It typically manifests as inappropriate behavior in relation to others, including use of lewd or suggestive language, fondling, flirtation, disrobing oneself or others, and displays of other overt sexual acts. Because the sexual behavior is unusual and involves a marked *increase* in sexually-oriented activity, it is known as *hypersexuality*.<sup>2</sup> It may begin insidiously with a few troubling incidents, and slowly escalate to a chronic problem.<sup>3</sup> Hypersexuality may

appear several months after a person has a stroke, and can appear if the patient has a history of post-stroke seizure activity.<sup>1</sup>

### **Klüver-Bucy Syndrome and Other Manifestations of Brain Damage**

Your aunt may have a condition known as Klüver-Bucy syndrome (KBS), which results from brain damage related to injury, stroke, seizures, or Parkinson's disease. Patients with KBS may fail to publicly observe society's sexual norms, and may demonstrate an increase in

sexual activity.<sup>4</sup> Some KBS sufferers who displayed heterosexual behaviors all their life may begin displaying homosexual behaviors.<sup>5</sup> Other features include a flat affect notable for imperviousness to fear or anger. In addition to mood changes, many patients with KBS experience extreme weight gain. Some also suffer from *psychic blindness*, an inability to visually recognize familiar objects.<sup>4</sup>

Your aunt may have experienced some damage to the frontal or temporal lobe of the brain, specifically in areas related

to libido and sexual orientation.<sup>6</sup> Computed tomography scans of the brains of hypersexual stroke victims reveal temporal lobe damage with evidence of seizure activity following the stroke.<sup>1</sup> The frontal lobes of the brain are thought to control "executive-functioning" acts such as response inhibition, planning, verbal mediation of behavior, and impulse control. Damage to frontal areas of the brain can create impulse-control problems and prevent patients from recognizing the inappropriateness of their behavior.<sup>6</sup> Hypersexuality and unusual sexual behaviors are seen in other disorders involving neurologic injury, including traumatic brain injury, epilepsy, and Tourette syndrome.<sup>7</sup>

## Hypersexual Behaviors and Their Consequences

Hypersexuality can result in patients' forgetting their sexual manners and losing the ability to stop sexual urges; thus, some of them may masturbate in public. These patients may also experience an uncontrollable desire for sexual contact with others. This desire (and resultant behavior) is typically directed toward a number of people as opposed to being confined to a particular person.<sup>3</sup>

Individuals may use sexually explicit language that is discordant with their pre-stroke personality. For example, they may:

- make sexual comments;
- describe their past sexual exploits;
- publicly talk about the loss of their sexual ability;
- make sexual suggestions to others such as "come to bed with me";
- read pornographic material openly; or
- request unnecessary genital care.<sup>3</sup>

In an institutional setting such as a nursing home or assisted living facility, hypersexuality may create problems for other patients and staff. Behaviors displayed by hypersexual individuals may involve touching or grabbing staff members' buttocks, thighs or breasts; touch-

ing another patient's genitals; or fondling a consenting patient's body in public.<sup>7</sup>

False complaints of sexual abuse and/or false sexual allegations may also occur. False accusations by hypersexual adults may have serious consequences, such as dismissal of an innocent staff member. In some cases, however, true sexual abuse may occur; either a caregiver may take advantage of a patient with hypersexuality or a hypersexual stroke survivor may take advantage of another resident or staff member.<sup>7</sup>

## Physical Consequences

Potential physical consequences of hypersexuality include urinary tract infections and sexually transmitted infections, as well as genital trauma. Some patients pull out catheters in their attempts to masturbate, causing further problems.<sup>7</sup>

## Research to Date

Some researchers postulate that changes in hormone levels or binding capacity after stroke contribute to hypersexuality, but, to date, no studies have confirmed this hypothesis.<sup>8</sup> Other researchers think that a disturbance involving monoamine (norepinephrine, dopamine, and serotonin) metabolism may underlie hypersexual behavior, although no human studies have demonstrated abnormalities in neurotransmitters in hypersexual persons.<sup>2</sup> Another possibility is that cerebral blood flow related to activation of certain areas of the brain is involved in hypersexuality.<sup>2</sup>

Clearly, this is a very complex phenomenon. It is important for the questioner's family members to understand that this aunt's behavior is beyond her control. Many times, these hypersexual behaviors are seen as willful conduct, and the patient exhibiting them ends up being punished.<sup>3</sup> Hypersexuality is a behavioral disturbance and personality change related to a disease process: It is not the aunt's fault but, rather, is due to many

factors associated with her stroke. If she has a partner, that partner needs to be reassured that the altered sexual behavior is a consequence of illness and not a reflection of their relationship.<sup>7</sup>

No controlled studies of pharmacologic treatment for hypersexuality have been reported.<sup>3</sup> As such, when healthcare providers and institution staff members are faced with sexually related behavioral problems, many of them resort to using inappropriate medications as a quick remedy. Hypersexual patients are routinely given antipsychotics or sedatives, which serve to calm patients temporarily but do not treat the underlying cause, and which, like all drugs, can have undue side effects, particularly in patients already receiving numerous medications.<sup>8</sup>

## Behavioral Interventions

Several behavioral interventions may be useful in patients who exhibit hypersexual behavior. In some cases, a simple explanation that the behavior is inappropriate may suffice.<sup>7</sup> Distraction and redirection techniques can be helpful, as well as modification of clothing (to make undressing in public difficult), removal of "sexual triggers" (eg, certain television shows), encouragement and reward of non-sexual displays of intimacy (eg, hugging), and engagement in group activities to enhance the experience of human connectedness.<sup>3</sup>

## Conclusion

Recovery from a stroke may take a patient and family members through many stages. Professional counseling that focuses on critical psychological, sexual, and social factors may have a beneficial impact on the patient's quality of life.<sup>3</sup> Healthcare providers and family members can play vital roles in facilitating long-term healing and obtaining necessary information and resources for a loved one who is experiencing hypersexual alterations secondary to stroke.

## References

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Do you know an NP whose achievements in caring for women inspire others? Think of a person you work with or know of who makes you want to do your best. Maybe you know of someone whose example in clinical practice, research, or teaching helped you or others to be that much better. Pay tribute to this person by nominating her or him for the 2006 NPWH *Inspirations in Women's Health Award*. There will be three winners; awards will be presented to them on September 28, 2006, at NPWH's 9th Clinical Conference in Las Vegas, Nevada. Transportation, hotel, and meeting costs, as well as a scholarship, will be awarded to three NPs who inspire us all. For more information about the contest, send an email to [info@npwh.org](mailto:info@npwh.org), log on to the NPWH website at [www.NPWH.org](http://www.NPWH.org), or call NPWH at 202.543.9693. An application for nominations can be found on page 21 in this issue and on the NPWH website.

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