calgary health region

1. Botox & MS

Question:

How are contractures and spasticity in multiple sclerosis (MS) avoided and treated, and what is the role for Botox?

Dan McGowan,
MD, CCFP, FRCPC,
physiatrist, replies.

Response:

Treatment goals include reduction of pain, frequency of spasms and risk of complications as well as improvement in range of motion (ROM), positioning, mobility, and function.

Management is multidisciplinary. Good nursing care, seating, and splinting can help reduce nociceptive stimuli. Stretching and ROM exercises are important for temporary control of symptoms, but clinical trials for avoidance of long-term complications are lacking. No anti-spasticity medication is uniformly useful, and all have potentially serious side-effects. Comparative efficacy and tolerability in MS is not well documented. Use of baclofen, tizanidine, gabapentin, diazepam, and dantrolene sodium is common. Baclofen can be administered intrathecally with an implanted pump. Nerve blocks, orthopedic tenotomy or tendon lengthening procedures, as well as neurosurgic neurectomy, rhizotomy and myelotomy, play a role in management.

Botulinum toxin type A (Botox®) and other types soon to be released can be effective in relieving focal spasticity around a joint or series of joints. This may help relieve pain, allow for better stretching, positioning and splinting, and reduce spasticity patterns. The injections are not without side-effects and the results are temporary (about 3 months). Use for lifelong spasticity needs to be evaluated further.

Suggested Readings

1. Barnes MP: Spasticity: A rehabilitation challenge in the elderly. Gerontology. 2001 Nov-Dec; 47(6):295-9. Review.
2. Brin MF: Spasticity Study Group: Dosing, administration and a treatment algorithm for use of botulinum toxin A for adult onset spasticity. Muscle Nerve Suppl 1997; 6:S169-75. Review.
3. Buschbacher et al: Deconditioning, Conditioning and the Benefits of Exercise, Chapter 34 in Braddom, *Physical Medicine and Rehabilitation*, 2001, 706-8.
4. Katz RT et al: Spasticity, Chapter 29 in Braddom, *Physical Medicine and Rehabilitation*, 2001, 592-615.
5. Shakespeare DT, Boggild M, Young C: Anti-spasticity agents for multiple sclerosis (Cochrane Review). In: *The Cochrane Library*, 1, 2002. Oxford: Update Software.

2. Hot Flashes and HRT

Question:

What is the cause of hot flashes in the elderly? Is hormone therapy indicated?

David Hogan, MD, FRCPC, geriatrician, replies.

Response:

Women with a surgically induced menopause are particularly likely to have this complaint. Hot flashes can occur long into the postmenopausal years, especially if it was a surgically induced menopause. Frequency and intensity of hot flashes tend to decline over time. **It is not unusual for women to have hot flashes for over 20 years.** For the elderly, persistent menopausal symptoms would be the most likely diagnosis, but remember to consider alternative explanations.

Hot flashes appear to be the body's response to a sudden, transient downward resetting of the body's thermostat. Estrogen deficiency appears to be the precipitant, but the specific mechanism of their action remains unexplained. Gonadotropins, catecholamines, and other substances have also been investigated as potential causes. Estrogen replacement therapy is often very effective in reducing hot flashes. It can even improve sleep quality by decreasing the frequency of nocturnal arousals.

Treatment would depend on the severity of the symptoms, an assessment of safety, and the wishes of your patient.

Alternatives to estrogens include progestagens, serotonin reuptake inhibitors (*i.e.,* venlafaxine, paroxetine, fluoxetine), and clonidine. Complementary approaches, such as dietary supplements containing isofalvones and vitamin E, are probably ineffective. Selective estrogen receptor modulators *(e.g.,* raloxifene) would not work for this problem; in fact, they can increase vasodilatation events. General advice for a sufferer would include regular physical activity, a balanced diet, avoidance of alcohol and caffeine, and stress reduction. CME

Suggested Readings
1. Stearns V, Ullmer L, Lopez JF, et al: Hot flushes. Lancet 2003; 360(9348):1851-61.
2. Stearns V, Beebe KL, Iyengar M, et al: Paroxetine controlled release in the treatment of menopausal hot flashes: A randomized controlled trial. JAMA 2003; 289(21):2827-34.
3. Tice JA, Ettinger B, Ensrud K, et al: Phytoestrogen supplements for the treatment of hot flashes: The Isoflavone Clover Extract (ICE) Study: A randomized controlled trial. JAMA 2003; 290(2):207-14.