

Chiropractic Care and the Geriatric Patient

The Burden of Musculoskeletal Disorders

Musculoskeletal symptoms increase with age. Thirty per cent of Canadian seniors aged 75 years and older report they suffer from mild, moderate, or severe pain. In Canada, 47.1% of people age 65 and over state they have been diagnosed with arthritis or rheumatism. Worldwide, musculoskeletal conditions are the most common causes of severe long-term pain and physical disability. Joint diseases account for half of all chronic conditions in people aged 60 and over. Twenty-five per cent of people over age 60 have significant pain and disability from osteoarthritis. ²

Low Back Pain

Low back pain is also very common in the older population with reported prevalence in ambulatory settings ranging from 12.8% to 51%.³ The true prevalence of back pain in the elderly is likely underestimated due to various barriers to reporting such as cognitive impairment, depression, altered pain perception, or focus on co-morbidity. As well, the elderly patient may not report musculoskeletal pain due to a wish not to burden caregivers or resignation to the perceived effects of aging.³ Back problems rank third for women and fourth for men as a leading cause of chronic health problems in adults over age sixty-five.⁴

Impact on Quality of Life

Pain and functional limitation from musculoskeletal disorders, especially osteoarthritis, can profoundly affect the quality of life of older adults.² Musculoskeletal disorders are the fourth most common cause of disability-adjusted life years.² At least 25% of elderly Canadians have some activities of daily living limited by musculoskeletal pain.¹

Living with musculoskeletal pain affects mobility, functional and social independence, activities of daily living, sleep patterns, and can lead to increased prescription and over-the-counter drug usage. Polypharmacy may increase the likelihood of drug-related problems which in turn negatively impacts older adults' health-related quality of life. Finally, pain from musculoskeletal conditions has the potential to affect psychological well-being as pain is an important predictor of depression.

Chiropractic Care

Chiropractors deliver safe and effective conservative therapy for musculoskeletal disorders of the spine, peripheral joints and muscles. Examples of conditions treated by chiropractors include:

- Acute and chronic mechanical back pain;
- Pain from degenerative joint conditions such as osteoarthritis, as well as sprains and strains;
- Early conservative management for conditions such as lumbar stenosis.

A Multimodal Approach

Best practice dictates a multimodal approach to care in all patients, particularly the geriatric population. Chiropractors are wellpositioned to deliver multimodal care and health promotion strategies. Specific treatment modalities include:

- Manual therapies joint manipulation, mobilization, and soft tissue therapies;
- Electrotherapeutic modalities ultrasound, inferential current or low level laser;
- Rehabilitation strategies exercise and behavioural modifications.

Physical rehabilitation and exercise prescription are vital to improving functional outcomes in the older patient. Exercise can improve gait, balance, coordination, proprioception, reaction time, and muscle strength even in very old and frail elderly people.⁷ The key is to get older people moving.⁷

Treatment Goals

The treatment goals, besides pain management, are to limit functional decline and activity avoidance.⁸ The number of treatment visits varies for each patient and condition, however the mean number of visits per year to chiropractors in Canada is 9.8.¹

Efficacy

Chiropractic and spinal manipulative therapy have been extensively investigated. In fact, manipulation is one of the most studied forms of conservative treatment for spinal pain. ¹⁰

The evidence base includes numerous systematic reviews which attest to the appropriateness of manipulation, combined with exercise, for spinal pain syndromes. ¹⁰⁻¹³ Government inquiries have concluded that chiropractic is safe and effective while demonstrating high patient satisfaction. ¹⁴ Clinical practice guidelines recommend the use of manual therapies for the treatment of back pain. ¹⁵

Observational studies on geriatric chiropractic care have shown that older adults seek chiropractic treatment primarily for low back pain;¹⁶ treatment most often includes manual therapy in combination with exercise and nutritional

prescription;^{16,17} and many patients experience positive outcomes such as pain relief with associated decreased pain medication use.^{16,17}

Contraindications

As part of their training, chiropractors are taught to recognize red flags which necessitate prompt medical referral, as well as to recognize contraindications for manual treatment. For example, osteoporosis is an ever-present concern in the older population and may be a contraindication to some manipulative procedures. The chiropractor can offer gentle alternatives to manipulation in these situations. Treatment is tailored to the geriatric patient giving special consideration to altered bone density, physical limitations and potential comorbidities. 9

Helping Canadians Age Successfully

Geriatric patients often present with a variety of co-morbidities, a complex medication regimen, and the need for imaging or other investigative procedures, thus it is paramount that chiropractors and medical doctors work collaboratively.

The National Advisory Council on Aging states that a person is aging successfully if he/she has a low risk of disease-related disability, has a high level of mental and physical functioning, is actively engaged in life, and can adapt to change and compensate for limitations. Interdisciplinary collaboration can help Canadians age successfully.

This overview has been researched and written by The Canadian Memorial Chiropractic College (2005).

References

- 1. Statistics Canada. Population Aging and the Elderly 1993; National Population Health Survey 2001; Canadian Community Health Survey 2000/01.
- Brooks PM. Impact of osteoarthritis on individuals and society: how much disability? Social
 consequences and health economic implications. Current Opinion in Rheumatology 2002;14:57377.
- 3. Bressler HB, Keyes WJ, Rochon PA, Badley E. The prevalence of low back pain in the elderly: a systematic review of the literature. Spine 1999;24(17):1813-19.

- Goel V, Iron K, Williams JI. Indicators of health determinants and health status. In: Goel V, Williams JI, Anderson GM, Blackstein-Hirsch P, Fooks C, Naylor CD, eds. Patterns of Health Care in Ontario. The ICES Practice Atlas. 2nd ed. Ottawa: Canadian Medical Association, 1996:5-26.
- 5. Ernst ME, Iyer SS, Doucette WR. Drug-related problems and quality of life in arthritis and low back pain sufferers. Value in Health 2003;6(1):51-8.
- 6. Carroll LJ, Cassidy JD, Cote P. Factors associated with the onset of an episode of depressive symptoms in the general population. J of Clin Epi 2003;56:651-8.
- 7. Kannus R. Preventing osteoporosis, falls, and fractures among elderly people. Promotion of lifelong physical activity is essential. BMJ 1999;318(7178): 205-6.
- 8. Byfield D, Barber M. Manipulative skills for the elderly/geriatric patient. In: Byfield D. Chiropractic Manipulative Skills, 2nd ed. Philadelphia: Elsevier Churchill Livingstone; 2005.
- 9. Killinger LZ. Chiropractic and geriatrics: a review of the training, role, and scope of chiropractic in caring for aging patients. Clin Geriatr Med. 2004;20(2):223-35.
- 10. Meeker WC, Haldeman S. Chiropractic: a profession at the crossroads of mainstream and alternative medicine. Annals of Internal Medicine 2002; 136(3):216-227.
- 11. Bronfort G, Haas M, Evans RL, Bouter LM. Efficacy of spinal manipulation and mobilization for low back pain and neck pain: a systematic review and best evidence synthesis. The Spine Journal 2004;4:335-56.
- 12. Gross A, Hoving JL, Haines TA, Goldsmith CH, Kay T, Aker P, Bronfort G; the Cervical Overview Group. A Cochrane Review of Manipulation and mobilization for mechanical neck disorders. Spine 2004;29(14):1541-48.
- 13. Assendelft WJJ, Koes BW, Knipschild PG, Bouter LM. The relationship between methodological quality and conclusions in reviews of spinal manipulation. JAMA 1995;274(24):1942-1948.
- 14. Wells T et al. Chiropractic Services Review, An Internal Review. Commissioned by the Ontario Ministry of Health, 1994.
- 15. Evidence-Based Recommendations for Medical Management of Chronic non-Malignant Pain. Facilitated by the College of Physicians and Surgeons of Ontario. November 2000.
- 16. Hawk C, Long CR, et al. Chiropractic care for patients aged 55 years and older: report from a practice-based research program. J Am Geriatr Soc. 2000; 48(5):534-45.
- 17. Rupert RL, Manello D, Sandefeur R. Maintenance care: health promotion services administered to US chiropractic patients aged 65 and older, Part II. J Manipulative Physiol Ther. 2000; 23(1):10-9.