To MRI or not to MRI?

In my June *BCMJ* article, I introduced my patient Bob. He had been rear-ended in a motor vehicle collision, and I reviewed existing medical literature for evidence to develop an initial treatment plan. At the outset, Bob and his lawyer had requested magnetic resonance imaging (MRI) scans of his head and neck. This article deals with MRI requests. I will revisit the Official Disability Guidelines (ODG) for evidence to direct the appropriate use of MRI.

In Bob's first visit, we had established injuries that included:

1. Grade 1 concussion
2. Grade 2 flexion extension neck injury

Bob was tested with a Standardized Concussion Assesment Tool (SCAT) for baseline cognitive function.

In the second visit, Bob no longer had a headache. His neck remained stiff and sore, and he complained of low-grade neck pain with episodic moderate pain radiating from his neck to his mid-back. His pain and stiffness had worsened over time, but he was not experiencing weakness and numbness. He took acetaminophen for the first few days in order to sleep comfortably.

I re-evaluated Bob with the SCAT. It remained unchanged. Examination of his neck and shoulders showed numerous trigger points. His neck range of motion was full, but he complained of discomfort at the end point of forward and right flexion. Axial loading of his neck in right flexion reproduced his pain. My diagnosis remained "mild concussion resolved and a grade-two cervical flexion extension injury." I recommended plain films of his neck with flexion extension views.

Bob's lawyer had sent him to our first visit with requisitions for head and neck MRIs to be performed at a private clinic. Bob again asked for the MRIs to be ordered. I reassured him that normally in cases such as his, MRIs would not be ordered. Bob was adamant that the MRIs be ordered and reaffirmed that they would be paid for by his lawyer, who felt it was important for Bob's claim that they be done. I offered to discuss the appropriateness of the MRI requests with Bob's lawyer. I referred to the Official Disability Guidelines (ODG) and obtained the latest guideline related to the appropriate use of MRIs. ICBC is now providing free access to the ODG for all physicians in British Columbia.

The ODG recommends plain films of the cervical spine for patients suffering whiplash injury with any evidence of neurological deficit or persistent pain. Lateral flexion and extension views may demonstrate instability of the spine. Any patient with a minimal fracture of the cervical spine should have a computed tomography (CT) scan to evaluate the status of the neural arch.

The ODG recommends the following indications for MRI:

- Chronic neck pain (i.e., after 3 months of conservative treatment)—radiographs normal, neurologic signs or symptoms present.
- Neck pain with radiculopathy, if severe or progressive neurologic deficit.
- Chronic neck pain—radiographs show spondylosis, neurologic signs or symptoms present.
- Chronic neck pain—radiographs show old trauma, neurologic signs or symptoms present.
- Chronic neck pain—radiographs show bone or disc margin destruction.
- Suspected cervical spine trauma—neck pain, clinical findings suggest ligamentous injury, radiographs, and/or CT "normal."
- Known cervical spine trauma—equivocal or positive plain films with neurological deficit.

The ODG recommends the following indications for MRI in head injury:

- To determine neurological deficits not explained by CT.
- To evaluate prolonged interval of disturbed consciousness.
- To define evidence of acute changes superimposed on previous trauma.

Bob clearly did not meet the ODG recommendations for MRIs of his neck or head. An MRI has a limited role in the clinical management of whiplash and minor concussion. Indiscriminate use of MRIs may in fact confuse matters by the identification of abnormalities which have little clinical significance.

The ODG is based on American data and reflects the standard of care in the United States. For the standards of care in Canada, physicians generally refer to the Canadian CT head rule for patients with minor head injury[1] and the Canadian C-spine rule for radiography in alert and stable trauma patients.[2] The Canadian guidelines focus mostly on CT scanning, which is the more appropriate test following plain film imaging. The Canadian guidelines also do not recommend the use of MRIs for this type of case.

A comparison of the Canadian guidelines and the ODG recommendations may warrant future discussion in another article. Canadian guidelines are considered to be cost-effective but may lack comprehensiveness, whereas some other countries, particularly the US, may have more comprehensive and more expensive recommendations.

This will be my last article as ICBC medical community liaison. My goal was to increase communication

Continued on page 336

calendar

Continued from page 335

IVF Pregnancy, Induction of Labor, Hypertension in BC, Teaching in the OR, Timing of Chemotherapy in Ovarian Cancer: What's the Rush?, Local Implementation of HPV Vaccine: Challenges and Strategies, Diminishing Role of Lymphadentectomy in Endometrial Cancer, Insitu Fallopian Tube Cancer: Research Update. For more information, visit www.cpdkt.ubc.ca or call 604 875-5101.

CANCER CONFERENCE
Vancouver, 29 Nov–1 Dec (Thur–Sat)

Come learn about BC's Family Practice Oncology Network at the BC Cancer Agency Annual Conference. Join family practitioners, oncologists, and specialists, and learn how the BC Family Practice Oncology Network can be useful to you and your patients. A full-day session on Saturday, 1 December will provide insight into the offerings and resources of the network and build an understanding of the critical issues of caring for patients at risk of getting cancer, living with cancer, or recovering from cancer. Register online at www.bccancer.bc.ca/HPI/AnnualConfererence2007/Registration or by calling Gail Compton at the Family Practice Oncology Network at 604 707-6367.

3 WINTER/SPRING CME CRUISES 2008

(1) Western Caribbean (26 Jan–2 Feb), **Obesity Management.** This course is designed for family physicians and specialists with a focus on cardiology (Dr Andy Ignaszewski), endocrinology (Dr Irving Gottesman), and sleep apnea (Dr Al Gerretsen). Conference provided by the Ontario Medical Association. (2) Eastern Caribbean (24 Feb–2 Mar), **Palliative Care.** Course designed for physicians and allied health care professionals. Keynote faculty: Dr Doris Barwich and Dr Michael Downing. (3) Eastern Caribbean (28 Mar–6 Apr). Nine-day cruise departing from New York City; visit the Big Apple then sail on this exciting cruise to the Caribbean. This conference includes two courses: (a) **Practice Management** by the Canadian Medical Association and (b) **Sexual Medicine Review.** All Sea Courses CME cruises offer preferred cruise rates and companion cruises free. Complete list of Sea Courses CME cruises at www.seacourses.com. Phone 1 888 647-7327, e-mail cruises@seacourses.com.

2 EXOTIC CME CRUISES (2008)

(1) New Zealand (16 Feb–1 Mar), **Women's Health,** with additional ports in Australia and Tasmania. (2) Asia (26 Mar–9 Apr), **Gastroenterology.** Cruising from Japan to Hong Kong. Both cruises are onboard Holland America Line. Space is very limited so early booking is highly recommended. All Sea Courses CME cruises offer preferred cruise rates and companion cruises free. Complete list of Sea Courses CME cruises at www.seacourses.com. Phone 1 888 647-7327, e-mail cruises@seacourses.com.

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Continued from page 304

between ICBC and the physicians of British Columbia. This was achieved thanks to the response of many physicians who have corresponded with me over the past year. I enjoyed and appreciated the opportunity to deal with many interesting and challenging issues regarding the treatment and management of ICBC claimants. I wish ICBC's new medical community liaison all the best and the continued support of the profession. In the interim, if you have any questions for ICBC relating to the care of injured claimants, please contact medinquiries@icbc.com.

—Martin Ray, MD

References

1. Stiell IG, Wells GA, Vandemheen K, et al. The Canadian CT head rule for patients with minor head injury. Lancet 2001;5:1391-1396.
2. Stiell IG, Wells GA, Vandemheen KL, et al. The Canadian C-spine rule for radiography in alert and stable trauma patients. JAMA 2001;286:1841-1848.

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Continued from page 330

Specialist Physicians and Surgeons (SSPS). Some of these funds apply to existing fee items and, therefore, will be implemented right away by the Medical Services Plan (MSP). The details of the remaining Recruitment and Retention proposals are being worked on by the MSP and the sections involved. It is anticipated that these funds will be implemented this fall.

The remaining $20 million was allocated using the Modified Adjusted Net Daily Income model that was developed by the SSPS. We anticipate that these funds will be implemented at the same time as the general fee increase.

Rural programs

The Joint Standing Committee on Rural Issues will conduct a review of its programs between July and December 2007. The review will evaluate the effectiveness of each program and make recommendations on future funding and additional programs.

If you would like to comment or make a submission on any or all of the programs or to suggest new ones, please send your information to the BCMA committee co-chair. For contact details and more information, please go to www.bcma.org, and click on "Joint Standing Committee on Rural Programs" under Agreement News.

—Fiona Youatt
BCMA Communications Department