



# Practice Tips

## Clinical sign could screen for depressive symptoms

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I describe a clinical sign that could be used during routine examinations to screen for patients with depressive symptoms. Such symptoms can range from subthreshold symptoms to mild depression to dysthymia to major depressive disorders. We see patients with these symptoms daily in primary care.

The sign is pain on palpation of the vertebra prominens (VP). If patients feel pain when I palpate the VP, the pain is usually associated with depressive symptoms. It takes less than 3 seconds to discover whether palpation causes pain. I have been using this sign as a screening method for 20 years.

Patients often present in primary care with symptoms not severe enough to fit the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition, (DSM-IV) criteria for a diagnosis of depression. Somatic symptoms account for more than 50% of all primary care visits<sup>1</sup> and are often medically unexplained. Primary care providers should maintain a high index of suspicion for identifying patients with depression.<sup>2-4</sup>

### Discovering the sign

I had noticed that patients presenting with functional complaints often had sore trapezius muscles, occipitalis spasm, and associated tension headaches. On examination, I habitually palpated these sites as well as adjacent structures. I noticed that tenderness at these sites was not always consistent with patient distress. Over time, I found that the prominent bump at the base of the cervical spine, the VP (usually the seventh cervical vertebra), was particularly painful when firmly palpated in patients with depression. Surprisingly, it was painless for patients who were not depressed.

When a patient's VP was painful on palpation, I would explore his or her experience of illness, which invariably uncovered comorbid depression and possibly anxiety. I realized that patients

with depressive symptoms and patients satisfying DSM-IV criteria for mild depression, dysthymia, or major depressive disorders all felt pain in the VP when it was firmly palpated.

### Technique

To elicit the sign, ask your patients to flex their necks completely but not to flex at the waist. The tip of the seventh cervical vertebra then becomes prominent. Use your index finger to apply very firm continuous pressure on the VP for 3 seconds. If patients indicate the pain from the maneuver is 4 out of 10 or greater, they should be evaluated for depression, regardless of their presenting complaints.

I made the following interesting observations.

- Patients are surprised to learn of this painful spot the first time the sign is elicited.
- A positive sign is common among patients with medically unexplained somatic symptoms.
- The sign appears to be a useful way to screen children for depression.
- No correlation between a positive sign and fibromyalgia trigger points is apparent.
- After treatment for depression and after patients have achieved scores in the normal range on the Zung or Beck questionnaires, the VP is still as sore as it was before treatment.
- The sign does not work for other conditions, such as bipolar disorder, schizophrenia, or borderline personality disorder.

### Literature search

I searched MEDLINE and the chiropractic and acupuncture literature from 1975 to 2005 using the search words depressive symptoms, depression, screening tools, neck pain, vertebra prominens, and ligamentum nuchae. I retrieved 950 abstracts, selected 54 publications, and did a systematic review of screening instruments.

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None of the articles described a link between pain on palpation of the VP and depressive symptoms. In the articles I reviewed, 34 screening instruments were mentioned, one as short as 2 questions and another as short as 1 question.<sup>5</sup>

The Canadian Task Force on Preventive Health Care and the United States Preventive Services Task Force concluded that adults should be screened for depression "in clinical practices that have systems in place to assure accurate diagnosis, effective treatment and follow up."<sup>6</sup> Before that they had recommended "only that clinicians remain alert for symptoms of depression."<sup>7</sup> They were referring to the use of screening tools and the lack of effective outcomes.

### Remaining alert for depressive symptoms

It is difficult for family physicians to screen for depressive symptoms using established instruments. These instruments take time, office staff, and money to administer. As Seelert et al<sup>8</sup> said, with reference to Klinkman and Okkes,<sup>9</sup> "The primary care field lacks brief instruments that can detect psychological distress affecting the patient's quality of life, even though identification of distress may not lead to diagnosis of a specific psychiatric condition."

The screening method I propose takes about 3 seconds to do and could easily be part of routine examination. The maneuver would be less intrusive than a depression questionnaire, and patients would not feel stigmatized. A high proportion of depressed patients present with somatic complaints because there is stigma associated with having psychiatric disorders.<sup>3</sup>

Looking for the sign is not meant to replace an interview designed to identify symptoms consistent

with DSM-IV criteria for diagnosing depression. The sign is not a diagnostic tool. A positive sign should encourage physicians to explore other diagnostic possibilities and can sometimes save the expense of unnecessary investigations. ❁

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We encourage readers to share some of their practice experience: the neat little tricks that solve difficult clinical situations. Tips can be sent by mail to **Dr Diane Kelsall**, Scientific Editor, *Canadian Family Physician*, 2630 Skymark Ave, Mississauga, ON L4W 5A4; by fax 905 629-0893; or by e-mail [ma@cfpc.ca](mailto:ma@cfpc.ca).

