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Article

What lies beyond the pain? A case report

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ABSTRACT

The majority of people have back pain at some point in their lives and most are cured without any intervention. However, some patients develop chronic back pain and persistent disability. There is strong evidence that psychological factors significantly correlate with the development of chronic back pain. Back pain has also emerged as the strongest predictor of major depression. Assessing and treating patients in a manner that integrates psychosocial and biological aspects of care is the essence of excellent family medicine. This case illustrates the importance for primary care physicians of screening for depression and other psychosocial factors in assessing patients with persistent back pain.

Keywords: back pain, chronic, depression, disability, intervention, psychological, psychosocial

Introduction

Back pain is the most common cause of occupational disability in the world.[1,2] Reported lifetime prevalence is between 50 and 70%[1,2] and one-year prevalence is about 12.7%.[3] Back pain is caused by a variety of diseases including disorders that affect the lumbar spine.[4,5] Back pain is a common complaint in the primary care practice, for which about one in four adults seeks medical help in a six-month period.[2] Therefore, it is not surprising that primary care physicians are frequently the key people involved in the assessment and management of patients with back pain.[6] The essential elements of this assessment include a comprehensive clinical evaluation and assessing the degree of functional limitation and psychological wellbeing.[4–7] This case study illustrates a patient who suffered from chronic back pain.

Case

The first consultation

Mr N, a 40-year-old policeman, came to the primary care clinic having had intermittent episodes of low back pain for the past year. His back pain usually occurred once a month and was relieved by a short duration of analgesia. He had only once sought treatment from a general practitioner three months before. A simple imaging was carried out but there was no identifiable cause for his low back pain. At this visit, his back pain had persisted for five days. The pain was similar to the other back pain instances which he had suffered over the past year. He also complained that for the past three months he had had more episodes of back pain as his workload as a police traffic officer had increased. The main precipitating factors were prolonged standing, walking and lifting heavy loads. He had been absent from work for each episode of back pain. He denied any history of fall or trauma. There was no history to

suggest malignancy, renal calculi, tuberculosis or connective tissue disease.

During the consultation, he appeared pleasant and his gait was normal. His body mass index was 24.7, which is mildly overweight. His neurological and spinal examinations were unremarkable. There was no abnormality noted during the clinical examination. Based on the clinical evaluation, the diagnosis of non-specific backache was made. He was then treated conservatively with analgesia and physiotherapy. Advice on back care was given to him. He was also given a memo for light duty for about six weeks. This was to reduce his workload, especially that involving lifting of heavy loads and prolonged standing.

Following visits

The patient returned to the clinic after eight weeks. He had stopped attending the physiotherapy as he was busy with his job. His back pain still had not improved. During this consultation, Mr N was not as cheerful and talkative as before. His voice was soft and his tone was low. He appeared sad and his eye contact was poor. He kept looking down to the floor with a lot of sighing and pauses during the conversation. Although the visit was originally scheduled to discuss the treatment of back pain, the primary care physician had to focus on exploring reasons for the sudden change in his behaviour.

During the consultation, he admitted that his mood had been low for the past month. He had lost weight and his sleep was affected. He denied hearing any voices or having suicidal thoughts. He claimed that he felt guilty as he was a burden to his colleagues. In addition, he was facing financial difficulties as he had to settle his younger brother's debts to loan sharks. He was still able to go to work but was having difficulty concentrating and completing the tasks given to him. He was diagnosed with major depression and an antidepressant was commenced. He also received cognitive behavioural counselling and relaxation therapy.

Six months later, his mood had tremendously improved. He had been compliant with his medication and monthly follow-up. He still experienced a few episodes of back pain but the frequency and intensity were less. He was more cheerful and able to cope with his back pain with physiotherapy and back massages. He was no longer feeling guilty and was able to socialise. He felt that his relationship with his family and colleagues had improved.

Discussion

The initial role of a primary care physician in managing a patient with back pain is to exclude specific pathology of low back pain. This is done by identifying red flag symptoms through the process of history taking and physical examination.[4,5] The presence of red flag symptoms suggests more serious underlying conditions and requires further surgical evaluation.[8,9] The red flag symptoms are:[8,9]

- presence of constitutional symptoms such as fever, loss of weight and appetite
- history of cancer and trauma
- urinary or bowel disturbance
- evidence of neurological deficit such as limb weakness or numbness
- prolonged use of steroid or immunosuppressant treatment.

In this case, there was no identifiable or specific cause for Mr N's low back pain – this is true in many cases of low back pain.[1,7] Such problems are commonly called non-specific back pain or simple backache.[1,7,8] Simple backache generally occurs between the age of 20 and 55 and the pain is mechanical in nature. It also varies with physical activity and with time. The patient is well and generally the prognosis is good. The majority of patients will recover from an acute attack in six weeks without any intervention.[10,11]

Lumbar sprain or strain is the most common cause of acute low back pain[12] and this was the most likely cause of Mr N's back pain. Acute strain may follow a sudden movement, especially lifting with a simultaneous twisting motion, as well as long periods of sitting or standing in one position.[5,11] It may be accompanied by muscle spasm or soreness to the touch.[5,12] The patient usually feels better when resting.[12] Acute low back pain due to lumbar strain usually resolves within a week with analgesia and by reducing but not eliminating all activity.[11,12]

A study demonstrated that the incidence of back pain increased among subjects who had heavy physical work.[13] Hence, this has confirmed many of our assumptions that back pain is significantly related to the intensity of physical activity. Over the past year, Mr N's back pain had become chronic and impaired his quality of life. In a prospective study done in the UK, 30% of patients with low back pain developed persistent disabling symptoms.[14] Studies have shown that there are 'prognostic factors' towards the development of chronic back pain. These prognostic factors include a) psychosocial factors[4,5,14–16] and b) poor coping mechanism.[5,17] Assessment of these factors is essential because recovery for people

who develop chronic low back pain is less likely the longer the problem persists.

Psychological distress including anxiety disorders, depressive mood and somatisation is associated with an increased risk of chronic low back pain.[14,16,18] Back pain is the strongest predictor for major depression and the combination of both back pain and depression is associated with greater disability.[19] In patients with chronic back pain, psychological assessment should also include patients' attitudes and beliefs about pain.[11,20] Identifying poor financial and social support are also important as these factors commonly lead to psychological distress.[11,21] Social assessment includes the family dynamics and how families cope with patients' pain and suffering. Poor family support would also reinforce the patient's pain and disability.[11]

Coping is important in stress and adjustment. Poor coping mechanism is also one of the important factors towards development of chronic back pain.[17] In general, individuals with pain use a variety of coping strategies on a daily basis. Those who use passive coping strategies to deal with their pain have a significantly increased risk of becoming disabled by the pain.[17] An individual who adopts a passive coping behaviour will let an external source manage their pain and allow other areas of life to be adversely affected by pain.[17] On the other hand, the use of active coping strategies is not associated with the onset of disability.[17]

Depression and back pain

It is a well-known fact that psychiatric illness has been implicated in the development and maintenance of chronic pain. However, it is still controversial whether emotional distress causes pain or is a consequence of pain.[22] In Mr N's case, his psychological distress was probably triggered by his underlying chronic back pain and his financial problem.

A lifetime history of at least one psychiatric disorder is noted in 81.4% of patients with chronic low back pain[23] and the most prevalent lifetime diagnoses are major depression, anxiety and substance use disorders.[23] Major depression has been reported as the most frequent psychiatric condition in back pain.[19] In addition, people with chronic back pain are about 6.2 times more likely to be depressed than the general population and they tend to be of a younger age (an average of 45 years old).[19]

Therefore, it is important for the healthcare providers to recognise and treat this condition. However, in clinical practice depression sometimes can be missed.[24,25] When the diagnosis of major depression in chronic back pain is missed or ignored, treatments specifically directed at the pain are likely to fail.[24] This can occur for two reasons: 1) clinicians may misinterpret symptoms such as fatigue and sleep disturbance as consequences of pain;[24] 2) clinicians often focus on physical symptoms and do not realise that these symptoms are related to the underlying depression.[25]

Management

For patients with chronic back pain, a multidisciplinary rehabilitation programme is currently the treatment of choice.[24,26] Such a programme includes a variety of treatment disciplines including primary care, psychiatry, physiotherapy, psychology and the orthopaedic surgeon. In this type of rehabilitation programme, an integrated biopsychosocial approach is essential as psychological and social factors are expected to be the major component of rehabilitation.[24] In this case study, it is crucial for primary care physicians to treat back pain and depression simultaneously as pain can give a negative outcome for depression.[27] Manual and exercise therapy are part of physical rehabilitation to mobilise and strengthen the supporting structures of the spine that reduce pain and improve patients' function.[8,13,26] It is also important to emphasise that regular exercise is effective in reducing back pain and prevent it from re-occurring.[13]

For primary care physicians, the initial step in managing a depressive patient is to educate the patient about his illness. In Mr N's case, the main areas of education were changing his false beliefs about back pain and depression as well as emphasising the importance of follow-up and treatment. This important step led to a mutual agreement on the patient's management plan and subsequently formed a good patient–doctor relationship, which is fundamental in managing any depressive patient.[25] Mr N was also informed of the strong relationship between passive coping and the development of disabling pain. This was to enable him to identify any maladaptive strategies and to seek help in coping.

The treatment of clinical depression most often includes psychological intervention and pharmacological treatment.[24,25] The main focus of psychological intervention appears to be on one or more of the following target areas:[24]

Cognitive behavioural strategies

In patients with pain, cognitive behavioural therapy (CBT) is an effective means of changing a person's perception and challenging his passive approach to coping.[17,24] The goal of the therapy is to modify

patients' coping behaviour and reduce their reliance on passive coping.

Physical techniques

Certain physical techniques such as relaxation or biofeedback help to reduce tension and anxiety.[24] In Mr N's case, he went for a regular massage. This had helped him to ease pain as well as providing some relaxation therapy.

Pharmacological treatment in the form of antidepressant medication also plays an important role in managing patients with depression.[24,25] Furthermore, antidepressants have another advantage as they have been to shown to produce analgesic effects and are frequently prescribed for patients with chronic pain.[22,24] The effect of both psychological and pharmacological treatment of depression may not be limited to depressive symptoms but may also improve sleep and reduce the severity and frequency of pain.[24] When prescribing antidepressants to patients with chronic pain, primary care physicians need to observe for any side effects as patients with chronic pain are less able to tolerate these.[24]

Conclusion

Primary care physicians have to face the greatest challenge in managing patients with back pain, which is to identify patients at risk of chronicity with a great deal of attention in detecting psychological distress. As this case illustrates, physical illness is only a small part of what patients bring to their doctors. Hence, primary care physicians should not restrict their attention to purely medical problems and need to be aware that a physical illness often precipitates psychological distress. This requires them to attend to the patient's psychological environment and stressors in order to understand their patients better.

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CONFLICTS OF INTEREST

None.

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