

Low Back Pain in a Pregnant Woman

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Abstract- Low back pain is very common and often considered a part of normal pregnancy. Because the pain is always attributed to pregnancy, referral to a specialist is often delayed. We describe a young woman who developed low back pain and signs of progressive spinal cord compression at 33 weeks' gestation of her second pregnancy. Magnetic resonance imaging of the thoracic spine showed a collapsed T11 vertebral body and a large paraspinal and intraspinal tumor compressing on the spinal cord from the right. Emergent surgical decompression and removal of the tumor mass was done. Pathological examination revealed metastatic adenocarcinoma and subsequently, a palpable nodule was found in the left breast, which, on biopsy, proved to be an invasive lobular carcinoma.

Key Words: Low back pain, Pregnancy, Breast carcinoma, Spinal cord compression, Magnetic resonance imaging

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INTRODUCTION

Low back pain occurs in approximately half of women at some time during their pregnancy⁽¹⁻³⁾. It is often looked upon as a part of normal pregnancy. Because several nonobstetric conditions may also present with low back pain, detailed history taking and complete neurological evaluation are crucial⁽³⁻⁶⁾. In this article, we report a young pregnant woman who developed low back pain, followed by a rapid worsening of spinal cord dysfunction requiring emergent investigation and surgery.

CASE REPORT

A 30-year-old nurse, gravida 2, para 1, presented at

33 weeks' gestation with a 2-month history of low back pain. The pain was described as a constant dull ache, which was exacerbated by movement and recumbency. During this period, she was seen regularly in a local clinic where she was given pain medication under the assumption that the pain was typical of a normal pregnancy. Several weeks later, she noticed a sensation of numbness ascending from her feet to the lumbar area. A few days before admission, gradual weakness of her legs, difficulty in urination and constipation were noted. On examination, there were impaired sensations below T12 level. Muscle power using the Medical Research Council Scale was reduced to 0/5 in the right lower extremity and 3/5 in the left lower extremity. Deep tendon reflexes were absent with extensor plantar response bilaterally. She also had urinary retention. Magnetic res-

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onance imaging revealed a collapsed T11 vertebral body, a paraspinal and intraspinal tumor, and the spinal cord was compressed by the tumor from the right (Fig. 1). The patient underwent an emergent cesarean section operation and decompressive laminectomy with removal of the intraspinal tumor. Histologic examination of the tumor revealed metastatic adenocarcinoma probably originating from the breast (Fig. 2). She did well postoperatively with gradual improvement in motor function and partial return of sensation. She also had a complete recovery of bladder function. Subsequently, a mass was palpated in the left breast and an excisional biopsy showed invasive lobular carcinoma (Fig. 3). Immunohistochemical staining were positive for estrogen receptor, negative for progesterone receptor, and weakly positive for HER-2/neu. She received a combination of chemotherapy, radiation and hormonal therapy. Eight months after the initial diagnosis, she was still stationary.

DISCUSSION

Although low back pain occurs commonly during pregnancy and the impact can be substantial, it is often dismissed as a trivial problem. Ostgaard et al.⁽¹⁾ reported that women with pregnancy-related low back pain were more likely to be multiparous and most of them had it before pregnancy. In addition, markedly accentuated

lumbar lordosis and endocrine changes during pregnancy were the other factors that may contribute to the development of low back pain⁽⁴⁾. Nonobstetric disorders implicated as causes of low back pain include lumbar disk diseases or herniation⁽⁵⁾, infections such as osteomyelitis, as well as urinary tract infections, inflammatory conditions (ankylosing spondylitis, rheumatoid arthritis or osteoarthritis), metabolic bone diseases, and neoplasms (primary or secondary neoplasia)⁽⁶⁾. While it is true that the majority of women with low back pain cope fairly well, some of them may need further attention and intervention. In such patients, evaluation begins with a thorough history and physical examination including com-

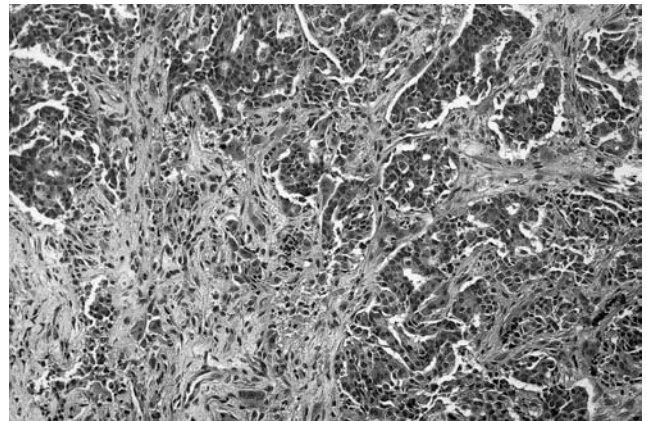


Figure 2. Biopsy specimens of the spinal tumor show tumor cells arranged in a glandular pattern, loosely cohesive nest or as individual cell dispersed in the stroma. (H&E, 100X).



Figure 1. Sagittal T1-weighted (left) and T2-weighted (right) non-contrast MRI of the thoracic spine showing a collapsed T11 vertebral body with a large intraspinal and paraspinal mass causing cord compression.

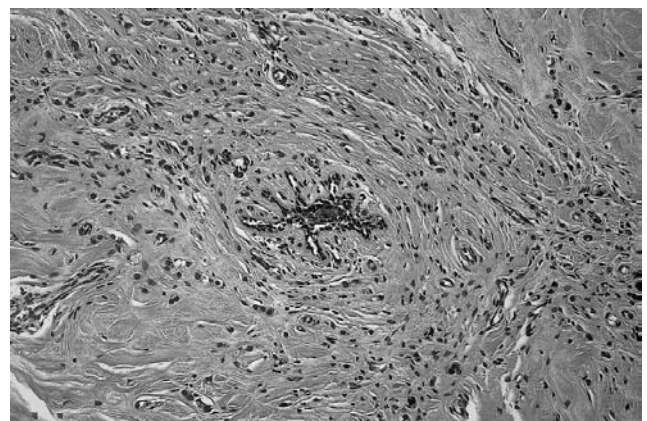


Figure 3. Biopsy specimens of the left breast show a classic pattern of invasive lobular carcinoma composed of non-cohesive cells individually dispersed or arranged in single file linear cords in a fibrous stroma. (H&E, 100X).

plete back and nervous system examinations. Radiographic evaluation should be performed when a destructive lesion of the bone is suspected. It should not be avoided purely for the sake of pregnancy⁽⁴⁾. Magnetic resonance imaging (MRI) of low back region seems to be safe during pregnancy and is the imaging modality of choice, proving effective and reliable in the diagnosis of either infectious or neoplastic process of this area^(4,7).

Because mean breast weight normally doubles during pregnancy, nodularities in the breast of pregnant women are often ascribed to benign proliferative changes^(7,8). As a consequence, the diagnosis and treatment of breast carcinoma are usually delayed. Pregnancy-associated breast cancer usually presents at an advanced stage and has a poor prognosis^(9,11).

Our patient is one example of the serious consequences of failing to investigate pregnant patients with significant low back pain and neurological signs early. We concur with the opinion by other authors that obstetricians should perform a thorough breast examination at the beginning of each trimester and maintain a high index of suspicion for cancer, thereby minimizing diagnostic delays^(7,8,11).

In conclusion, pregnancy-related low back pain is a complex issue that deserves careful management and detailed evaluation.

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