CASE REPORT

Photosensitivity and double vision as initial symptoms of colon cancer

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SUMMARY

A 75-year-old man suffering from rheumatoid arthritis, myxoedema and type II diabetes mellitus, presented with occasional double vision and photosensitivity.

The patient underwent an MRI of the brain showing a tumour located in the right of the sphenoid bone.

A subsequent diagnostic CT scan of the thorax, abdomen and pelvis revealed a left-sided colon tumour, which biopsy proved as being an adenocarcinoma.

analysis confirmed the diagnosis of an adenocarcinoma. Final Tumour, lymph Nodes and Metastasis (TNM) classification was: T3N2M1 (Stage IVB).

The patient retrospectively reported dizziness and tiredness increasing over the past months. Moreover, he had experienced gastrointestinal symptoms including obstipation and a decreased appetite. There had been no blood in the stools, painful defaecation, or obvious weight loss.

BACKGROUND

The two most frequent symptoms of colorectal cancer include blood in the stool and change in defaecation pattern. Moreover, tiredness caused by anaemia, abdominal pain, weight loss, fever and a palpable mass are frequent unspecific symptoms. Usually, the symptoms tend to arise late in the course of the disease.¹

Bone metastases from colorectal cancer, however, are uncommon; autopsy cases show a prevalence of 11–24% and bone metastases usually present late in the natural history of metastatic disease.²

The most common sites for bone metastases in patients with T3/T4 tumours include the spine, hip, pelvis and long bones—sites other than these get involved in only 17% of cases.³

Breast cancer is the most common cause of orbital metastases, closely followed by lung cancer, prostate cancer and malignant melanoma. Prostate cancer accounts for the most metastases to the bone wall of the orbit.^{4,5}

CASE PRESENTATION

A 75-year-old man suffering from rheumatoid arthritis, myxoedema and type II diabetes mellitus, presented with occasional double vision and photosensitivity. He consulted a neurologist due to photosensitivity, occasional double vision, sensory disturbances and pain in the right temporal region. A physical examination at an ophthalmologist had revealed no abnormalities. The temporal pain showed no relief on weak analgesics.

The patient underwent an MRI of the brain, revealing a tumour in the wall of the right orbit, the sphenoid bone, and affecting especially the lateral rectus muscle (figure 1). No cerebral metastases were found. A subsequent CT scan of the thorax, abdomen and pelvis with intravenous and oral contrast revealed a tumour with a diameter of 6 cm, at the left colon flexure, as well as multiple liver metastases (figure 2). A colonoscopy was performed, identifying a tumour, partially constricting the bowel lumen. Biopsy specimens sent for histological

DIFFERENTIAL DIAGNOSIS

The most frequent causes of metastases to the orbit should be considered when a patient presents with unilateral orbital symptoms.^{4,5} Further examinations should focus on signs and symptoms of breast, lung, skin and prostate cancer. These may be important differential diagnoses to the many malignant as well as non-malignant intracranial, vascular or endocrine diseases, which may present with symptoms similar to the case presented above. In this case, the orbital symptoms could also have been caused by one of the patient's comorbidities and a diagnostic approach focusing on one of these diseases would likely have led to a delay in the diagnosis of colon cancer.

TREATMENT

As a result of the advanced stage of the disease (stage IVB), curable treatment was not considered. Therefore, the patient was admitted to palliative treatment with radiotherapy and chemotherapy. A few days after initial diagnostic imaging, high-dose opioids were needed in order to relieve the patient's temporal pain.

OUTCOME AND FOLLOW-UP

The patient died from a cardiac arrest 2 months after the initial diagnostic imaging examinations.

DISCUSSION

Several intracranial diseases can cause double vision and photosensitivity; however, this report emphasises the importance of 'out of the box thinking' and the need to always consider the possibility of extracranial diseases.

Symptoms affecting the vision are uncommon manifestations of colorectal cancer.

Two studies report similar initial symptoms for an underlying malignant colon disease with metastases to the orbit.^{6,7} However, these reports have been due to soft tissue, muscle and bulbar metastatisation within the orbit and with no primary involvement of the bones. To the best of our knowledge, there have

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Figure 1 A 75-year-old man presents with occasional double vision and photosensitivity. MRI coronal T1 image without intravenous gadolinium (A) and T1 image with intravenous gadolinium in coronal image (B) and transversal image (C) showing a tumour (white arrowhead) in the right sphenoid bone. Notice how the superior and lateral rectus muscles are displaced caudally and medially (white arrow).

been no reports regarding bone metastases of the orbit causing the initial symptoms of colon cancer.

Unlike in our findings, symptoms originating from orbital metastases are seen primarily in patients already diagnosed with malignant disease.⁴ Furthermore, when a tumour in the orbit occurs, it is most likely to be a primary tumour; metastases to the orbit are estimated to account for only 1–13% of all orbital tumours.⁴

This case report emphasises the value of proper differential diagnostic thinking whenever a patient is presenting with

Figure 2 CT scan of the thorax, abdomen and pelvis showing a 6 cm tumour in the oral part of the left colon flexure (white arrowheads) with multiple liver metastases (white arrows) and enlarged lymph nodes along the aorta (not shown). The colon tumour was a biopsy-proven adenocarcinoma—T3N2M1 (Stage IVB).

non-classic symptoms. This case report also shows the importance of proper diagnostic imaging.

Learning points

- ▶ Patients with colon cancer usually develop symptoms late in the course of the disease.
- ▶ Symptoms from colon cancer can be unspecific, and may include tiredness, fever, weight loss and abdominal pain.
- ▶ Whenever unilateral orbital symptoms arise, the possibility of potential extracranial disease must always be considered.

Competing interests None.

Patient consent Obtained.

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