

Case report: Schizophrenia and hypertrophic osteoarthropathy, a rare syndrome hiding a life-threatening condition

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Abstract

Schizophrenia is associated to somatic disorders especially cardio-vascular and auto-immune. Through this case report, we describe an association with hypertrophic osteoarthropathy (HPO). For this patient it was a paraneoplastic paraneoplastic syndrome secondary to lung cancer. This syndrome is rare but important to recognize since it could hide a life-threatening condition.

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ABSTRACT

Schizophrenia is associated to somatic disorders especially cardio-vascular and auto-immune. Through this case report, we describe an association with hypertrophic osteoarthropathy (HPO). For this patient it was a paraneoplastic paraneoplastic syndrome secondary to lung cancer. This syndrome is rare but important to recognize since it could hide a life-threatening condition.

KEY CLINICAL MESSAGE

Schizophrenia is associated to somatic diseases. We describe an association with hypertrophic osteoarthropathy (HPO). It is a rare clinical entity but it could be a paraneoplastic syndrome hiding a life-threatening condition.

INTROODUCTION

Hypertrophic osteoarthropathy (HPO) is a rare syndrome that can be idiopathic or secondary to an infection, an inflammation or a malingering cause mainly affecting intrathoracic organs.

Clinically its more prominent symptom is finger clubbing, other symptoms can be seen such as tenderness in the palpation of tubular bones or periosteal proliferation (1).

As a psychiatrist, it would be important to recognize this clinical entity, because on one hand patients with schizophrenia can have difficulties expressing their physical grievances (2) and on the other hand as rare as this condition is it can hide a serious underlying disease. This would be illustrated in this case report.

PATIENT AND OBSERVATION

HB, a 46-year-old male, married father of 3 children, and electrician. He was diagnosed with schizophrenia in the same year. He was put on long-acting injections (LAI).

He is a smoker with 52 packs-year, he doesn't use alcohol or other psycho-active substances.

The patient reported pain in the hands and knees that he had for 6 months and a swelling in the same joints since a month.

The main functional signs were; weight loss, anorexia, asthenia and myalgia. Clinical signs consisted of swelling in both hands, tenderness in the palpation of the right knee and the 2 legs. The diagnosis of HPO was made by the presence of polyarthritis and finger cubbing. Further examinations were performed to identify the underlying cause of HPO. Routine blood tests were performed objectifying hypocholesterolemia, hypertriglyceridemia, anemia and hypoalbuminemia.

Radiographies of the hands, knees, legs and pelvis had no anomalies. radiographies of arms objectified osteolytic images in both humeri.

A fiberoptic endoscopy was performed with no abnormalities.

A PET-scan was performed objectifying a mediastinal tumor of 8 cm

A biopsy of the tumor objectified a lung squamous cell carcinoma staged T4N3M1c.

The patient is going to start chemotherapy but his prognosis is bad given that the cancer is at an advanced stage.

DISCUSSION

HPO is an orphan syndrome (1). It can be divided to primary HPO; pachydermoperiostosis, mainly seen in children or young adults, with a genetic predisposition (3) and secondary HPO that is seen in 97% of the cases. It is mainly due to a pulmonary affection in that case called “hypertrophic pulmonary osteoarthropathy” (HPOA) (3) but also it could be secondary to a cardiac, gastric, hepatobiliary or miscellaneous cause.

The main clinical features of the syndrome are finger and toe cubbing. We can also see skin hypertrophy that may give coarse facial features or swelling at the ankles. A thickening of tubular bones had been described and it might be more noticeable in the extremities such as ankles and wrists. Periosteal effusion may also happen causing tenderness in palpation of concerned areas. In the particular case of lung cancer, patients may experience burning sensation of the fingertips and bone pain (1)

A case of HPO was described in a homeless patient with schizophrenia; it was secondary to an infectious endocarditis (4). For of our patient, HPOA was a paraneoplastic syndrome secondary to a pulmonary neoplasm.

Several studies have looked at the frequency of lung cancer in schizophrenic patients. we found a review of literature that concluded to a certain resistance of patients with schizophrenia towards cancer (5) compared to the general population. Another study conducted on patients with schizophrenia and their relatives found higher incidences of cancer in the patients compared to their relatives (6). The most frequent cancer in schizophrenia was lung cancer for men and breast cancer for women (6), but studies had controversial results when comparing the incidence of lung cancer in schizophrenia patients compared to the general population. But once the diagnosis is made, patients with schizophrenia have poorer survival rates (7) more than twice the risk of mortality (8).

This emphasizes how important is the screening of schizophrenic patients at risk of lung cancer (8) especially that the first risk factor of lung cancer is smoking (9). Tobacco consumption has been documented in schizophrenia. The patients smoke both more frequently and bigger quantities of cigarettes, throughout all the stages starting from first episode psychosis (FEP) to chronic disease (10). Many hypotheses tried to find explanation to this phenomenon; smoking is thought to have a good impact on negative symptoms, to have sedative effect or to deal with extrapyramidal symptoms (10). A genetic study even identified a shared loci between lung cancer and smoking (11). This should encourage clinicians to use different available methods to reduce or stop smoking (12) (13)

CONCLUSION

HPO is a rare syndrome that could be idiopathic or secondary to inflammatory, infectious or neoplastic cause. In this case HPO was a paraneoplastic syndrome that revealed lung cancer. Clinicians should pay close attention to physical complaints in schizophrenia because this population is vulnerable to some somatic affections. Patients with schizophrenia should be screened for lung cancer as soon as risk factors are identified.

The major risk factor for lung cancer is tobacco consumption. In this population the consumption is more important and more frequent. So, they should imperatively be addressed to programs to quit smoking. For now, we have anti-tobacco strategies that are addressed to the general population. It would be more interesting and perhaps more effective to elaborate strategies adapted to patients with schizophrenia.

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