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Case Report

Psychiatry Section

Leriche Syndrome Presenting as Depression with Erectile Dysfunction

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ABSTRACT

Leriche syndrome results from thrombotic occlusion of the abdominal aorta immediately above the site of its bifurcation. Impotence in leriche syndrome is caused due to proximal obstruction, commonly involving isolated common iliac, internal iliac, internal pudendal or dorsalis penis artery. The symptoms of Leriche syndrome include intermittent and bilateral claudication, pallor, coldness and fatigue in lower extremities. Data regarding psychiatric morbidity in Leriche syndrome is unavailable. We hereby report the case of Leriche syndrome, presenting to psychiatry outpatient department with depressive disorder and erectile dysfunction (ED) with focus on dilemmas faced in the diagnosis and management in psychiatry.

Keywords: Aortoiliac occlusion, Dyslipidemia, Psychiatric comorbidity, Impotence

CASE REPORT

A 33-year-old man presented to psychosexual clinic in psychiatry outpatient unit with complaints of decreased penile erections from last 6 months. Patient reported that penile erections were gradually decreasing in intensity and from last 3 months almost no erection was there. He was having frequent dispute with his wife over this issue and had visited local practitioner before coming to the psychiatry unit. He complained that he has sadness of mood from last two months, which was persistent and pervasive. He also reported loss of interest in earlier pleasurable activities and easy fatigability. He would not interact with his wife and children and would often take leave from his job. He also had complaints of early morning awakenings and reduced appetite. His father was hypertensive and taking treatment for the same. There was no past or family of any psychiatric illness. He was non hypertensive and non-diabetic. There was no history of any substance abuse. Patient reported that once he took sildenafil from a friend before intercourse, and he had complaint of chest pain, on the left side, which was retrosternal, but it subsided in 5 to 10 minutes.

His mental status examination revealed reduced psychomotor activity, decreased amount of speech. His flow of thought was reduced and there were ideas of hopelessness and worthlessness. Cognitive function tests revealed poor concentration.

Routine investigations including hemoglobin, complete blood count, renal function tests, liver function tests, blood sugar, urine routine microscopy were all normal except for dyslipidaemia (Triglycerides level was 409 mg/dl). His ECG was done, and it showed left axis deviation. He was referred to a cardiologist for further evaluation. Provisional diagnosis of severe depressive disorder was made and he was started on tablet sertraline 50 mg and tablet clonazepam 0.5mg. After 2 weeks he reported minimal improvement in his depressive symptoms, so sertraline was increased to 100mg.

His 2D Echo revealed moderate left ventricular dysfunction. On further probing he complained of claudication in the left leg, after walking around 500 meters and sometimes pain in buttocks after walking from last few weeks. Physical examination revealed a weak pulse in the left groin and ankle. He was referred to surgery department, where he was investigated for claudication. His CT angiography of abdomen and both lower limbs with contrast revealed atheromatous changes involving abdominal aorta and its major branches in the form of wall thickening and complete block in left common iliac artery, external iliac artery, internal iliac artery with distal normal contrast opacification. Faint contrast opacification of right renal artery was suggestive of near complete block with shrunken right kidney. There was no evident aneurysm or arteriovenous malformation.

He was diagnosed with Leriche syndrome. Prognosis was explained to the patient and given revascularization procedure as the treatment option, which he refused. He continued follow up in psychiatry unit as he reported improvement in his depressive symptoms, daily functioning and minimal improvement in his erectile dysfunction (ED). Despite understanding the fact that his ED is organic, he refused for any further investigation and treatment because of affordability issues and continued with sertraline. During follow up visits, he insisted on prescribing sildenafil but the risks and contraindications were clearly explained.

DISCUSSION

Erectile dysfunction (ED) commonly affects men above the age of 40 years. ED which was once believed to be a psychological problem, now has been estimated to be mostly physical in nature. It can have a number of causes such as obesity, hypertension, diabetes mellitus, hypercholesterolaemia and lower urinary tract symptoms. ED is said to be a strong predictor for atherosclerosis and coronary artery disease [1,2].

Many of the pathophysiological mechanisms causing ED are not yet known. Leriche syndrome and obstructive disease of the penile arteries are said to be the two main vascular causes of impotence. Vascular stenosis, is a significant cause of impotence that can occur in men with no other obvious cardiovascular anomalies [3].

The symptoms of Leriche syndrome include claudication which is intermittent and bilateral with ischemic pain and absent or diminished femoral pulses. It can be associated with pallor, coldness and fatigue in lower extremities, ED, weak femoral and distal pulses [4-8]. ED presenting in the young males may be the first symptom of the Leriche syndrome. Leriche syndrome is also caused, because of the lifestyle factors, which are same as atherosclerosis, such as poor physical exercises, diet and smoking [2,4,5,9].

Leriche syndrome, however, remains unexplored and there are very few cases reported in literature, that too in relation to the surgical revascularization procedures, which remains the mainstay

of the treatment. There are many therapeutic interventions available like percutaneous coronary intervention, endovascular intervention of aortic aneurysms, Transcatheter valvular therapy, and endovascular intervention for ED [10,11].

Data regarding psychiatric morbidity in Leriche syndrome is unavailable, though the presence of multiple risk factors, same as atherosclerosis, also poses an individual to the risk of vascular depression [12,13], but to the best of authors' knowledge, such cases are not reported in the literature yet. We hereby report the case of Leriche syndrome, presenting to psychiatry outpatient department, with depressive disorder and ED with focus on dilemmas faced in the diagnosis and management in psychiatry.

This is a case of Leriche syndrome, described by Leriche in 1932 in a patient with bilateral aorto-iliac disease and ED [14]. The diagnosis may be easily missed as many clinicians are not aware that vascular lesions can result in impotence in men who are non diabetic, non-hypertensive and who show no other sign of vascular disease, such as angina, claudication and ischemic pain [3].

Psychiatrists, in India, deal with a large number of cases of ED and are largely unaware of such rare surgical entity. As psychiatrist we have tendency to focus on the psychological cause of ED. it is a established fact that ED is a strong predictor for coronary artery disease, and cardiovascular assessment should be a routine for cases of ED presenting to psychiatry department [1]. Apart from basic routine investigations, one should include an ECG or 2D Echo in a patient of ED to thoroughly investigate for cardiac and vascular disorders and specially before prescribing phoshodiesterase-5 inhibitors such as sildenafil, which further compromise the situation.

It was very difficult to diagnose Leriche syndrome in this patient as the symptoms of claudication or pain in limb appeared long after ED. Initial presentation in young patient with severe depressive symptoms, without any history of diabetes and hypertension, can easily mislead one to label it as functional impotence. Indicators like chest pain on taking Sildenafil and ECG changes were given due consideration and hence, could lead to diagnosis. So, this case emphasizes the importance of exploring, investigating a patient of ED for all the possible vascular and cardiac diseases.

There is no data in regard to psychiatric morbidity due to Leriche syndrome. This patient presented with depressive symptoms in the background of vascular disease which strongly favors the concept of vascular depression. Though vascular depression was conceptualized as late life depression precipitated or perpetuated by cerebrovascular disorders, which also commonly present in the late life. Atherosclerotic lesions disrupting prefrontal systems and their modulating pathways can be a central mechanisms in vascular depression [12,13]. We are still unaware, if such things can occur in young male with severe vascular disease. This case will also instigate researchers for examining the mechanisms by which vascular disease influences brain and the development of psychiatric disorders as depression in young patients with severe vascular diseases.

CONCLUSION

Atypical presentation of Leriche syndrome should be kept in consideration. The patients presenting with erectile impotence along with claudication or pain should be investigated to rule out vascular obstruction, especially if the patient has predisposing factors such as obesity, hypertension, diabetes mellitus and hypercholesterolaemia.

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