International Journal of Research in Medical Sciences
Nagabhushanarao BV et al. Int J Res Med Sci. 2024 May;12(5):1730-1734
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: https://dx.doi.org/10.18203/2320-6012.ijrms20241266

Case Report

Orogenital ulcers and the Behcet's disease

Bhavana V. Nagabhushanarao[1]*, Vatti Narmada[2], Boddapati Nageswararao[1], Kolavennu S. Kumar[1]

[1]Department of Medicine, Queen's NRI Hospital, Visakhapatnam, Andhra Pradesh, India
[2]Department of ENT, Queen's NRI Hospital, Visakhapatnam, Andhra Pradesh, India

Received: 27 February 2024
Accepted: 01 April 2024

***Correspondence:**
Dr. Bhavana V. Nagabhushanarao,
E-mail: bhavanavnrao@gmail.com

ABSTRACT

Behcet's's disease is a systemic vasculitis involving small to large veins and arteries. It is a sporadic disease, mostly prevalent among the ancestors of the silk route. It is characterized by recurrent oral ulcers, genital ulcers, and uveitis. It also can manifest as skin, vascular, gastrointestinal, neurological, cardiac, and renal involvement. Though overall mortality is around 5%, delay in diagnosis and treatment may lead to significant morbidity. Cardiovascular and pulmonary arterial aneurysms are dreadful complications of this disease. Being uncommon in south India it is liable to be wrongly diagnosed and treated. Delay in the diagnosis and treatment may lead to severe complications. Here we present a case of Behcet's disease which was managed at primary health care inadequately. We also demonstrated a quick response to steroids which are the mainstay of treatment. In this case presentation we illustrated pre and post treatment scrotal and oral Behcet's's lesions for clinicians to memorize. We also discussed international criteria to diagnose Behcet's disease (ICBD) in concurrence with our case. In this presentation, we briefly described the involvement of other systems and their treatment. This article also elaborated on the latest developments in the treatment of Behcet's disease.

Keywords: Oral ulcers, Genital ulcers, Behcet's's disease, Steroids, Aneurysms, TNF alpha antagonist

INTRODUCTION

Behcet disease is a systemic vasculitic disease, rare and characterized by triad of recurrent oral ulcers, genital ulcers, and uveitis.[1] It may also present as skin and mucosal lesions, arterial and venous vessel wall disease and gastrointestinal and neurological disorders.

A disease similar to Behcet disease was first described by Hippocrates in 5th century BCE. The disease was named after Hulus Behcet, a Turkish dermatologist who first diagnosed the case 1924 and later published a detailed report in 1937.[2] The disease is more common among the ancestors of silk route. Patients are most often from the Middle East, the Mediterranean or far east. It is most prevalent in Turkey up to 1 in 250 adults. Male to female ratio is variable according to geographical area, mostly equally affected though the disease is more severe in male. The disease is rare before late teens and after 50, the common age of affliction is 20 to 25. Though authentic statistics aren't available for India, less than 1,00,000 cases per year were reported.

Etiology and pathogenesis are not definitive. There is possible genetic predisposition, carriers of HLA-B51/HLA- B5 have increased risk of developing Behcet disease.[3] It was a hypothesis that preceding infection triggers autoimmune response and genetically predisposed individuals were more prone to developing symptoms of Behcet disease. Behcet disease is a pan vasculitis involving small, medium, and large sized veins and

arteries. It has a tendency to abate over time and different clusters of presentations in different regions.

Skin and mucous membranes are frequently involved, 90% patients have oral ulcers, and 80% patients have genital ulcers. Genital ulcers usually heal by scarring. Acne, papulo-pustular lesions, and pyoderma gangrenosum do occur. Erythema nodosum is more common in females. 25% of patients suffer from vascular diseases, common are thrombophlebitis, deep vein thrombosis, Budd Chiari syndrome and Inferior vena caval syndrome. Pulmonary arterial malformation is a serious condition which needs to be eliminated before starting anticoagulation. In 50% patient's eyes may be affected, in the form of bilateral pan uveitis, hypopyon, posterior uveitis, vitreous opacity and macular edema. Posterior uveitis is an emergency; early initiation of high dose intravenous methylprednisolone is warranted.

Nondestructive oligo or mono arthritis is the feature. Brainstem and spinal cord involvement are common neurological problems; one third may be affected by venous thrombosis. Gastrointestinal involvement is frequent in the Far East in the form of intestinal ulcers resembling Crohn's disease and rare in the Middle East. The pericardium, myocardium and endocardium may rarely be affected in Behcet disease. Renal involvement is very rare, but amyloidosis and glomerulonephritis have been reported.

Differential diagnosis includes drug reactions (Steven Johnson syndrome), venereal diseases, inflammatory bowel diseases, seronegative arthritis, systemic lupus erythematosus and orogenital herpes.

Treatment is as per severity of disease. Most of the new manifestations occur in the first 5 years of illness and may go for remissions. Oral and genital aphthae may respond to topical steroids or may require oral steroids. Colchicine may reduce the pain and inflammation. Apremilast also was tried successfully. NSAID for arthritis and sulfasalazine for gut ulcers are useful. Azathioprine, interferon alpha 2 are the drugs of choice if primarily treatments fail, in disease involving other systems. Cyclophosphamide and high dose steroids for venous thrombosis and anticoagulation for cerebral venous thrombosis.[4]

CASE REPORT

Mr. X, a 17-year-old male patient was admitted to our hospital on 30 June 2023. He had been suffering from high grade recurrent fever with chills for the last one month. He also had multiple small ulcers in the oral cavity, scrotum, and glans penis. He had recurrent oral ulcers in the past but not this severe, they used to subside with small tablets brought by his uncle across the counter. He had pain in his left ankle initially. For the last 3 days he had redness of both eyes, right more than the left.

He was treated as an outpatient in various clinics at his native place and later hospitalized. He was treated with multiple intravenous antibiotics and antifungal drugs. Had his symptoms worsened he was brought to our hospital.

On clinical examination he had no fever but had severe throat and scrotal pain.

He had a large ulcer on soft palate and multiple small ulcers in the oral cavity and on the lips (Figures 1 and 2). He had a large ulcer on the medical aspect of scrotum on the right side (Figure 3). In addition, he had multiple ulcers on the glans penis (Figure 4). He developed congestion of both eyes right more than the left (Figure 5). He had a history of maculopapular rash, in the beginning of his illness as per previous doctor's records.

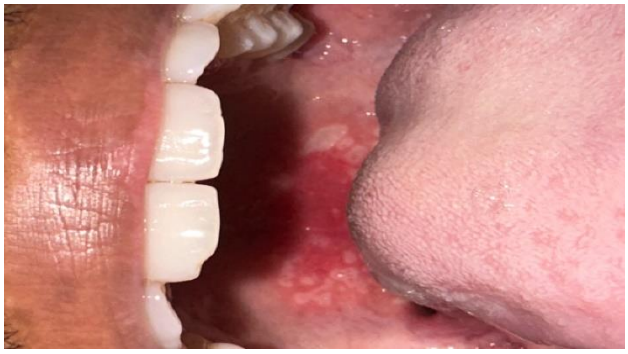

Figure 1: A large ulcer on soft palate.

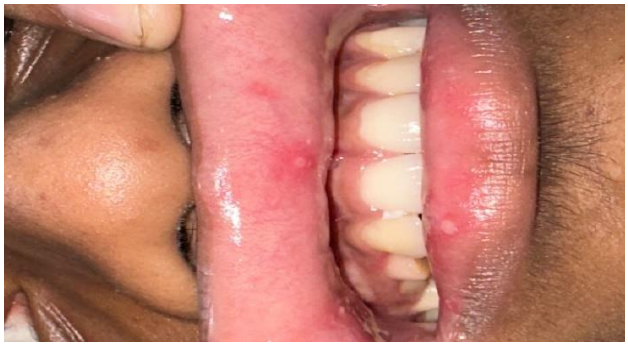

Figure 2: Multiple ulcers over lips.

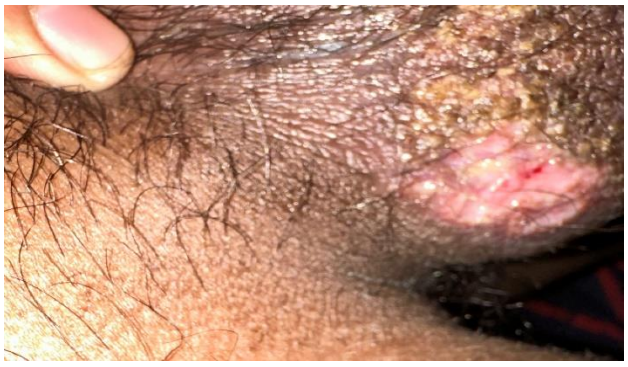

Figure 3: A large ulcer on the medial side of scrotum on the right side.

Investigations revealed high polymorph leucocytes, elevated erythrocyte sedimentation rate (ESR) and a grossly raised C-reactive protein (CRP) (Table 1).

Multiple pricks were made on the left forearm with a sterile needle, no erythematous nodule or pustule was formed at the puncture area over 48 hours of observation suggestive of a negative pathergy test (Figure 6). Though a positive pathergy test is suggestive of the Behcet disease, negative test doesn't exclude the diagnosis.[5]

Table 1: Investigations.

Parameters	Values
Total white cell count	17,000, P72, L26, E01, M01
Erythrocytes sedimentation rate	80 mm/hour
C-reactive protein	115 mg/dl
Renal functions	Normal
Liver functions	Normal
Serum electrolytes	Normal
Peripheral smear	Normal
Throat swab for culture	No growth
Blood cultures	No growth
Ultrasound abdomen	Normal
CT scan chest	Normal
Electrocardiograph	Normal
Echocardiogram	Normal
Screening HIV and HbsAg	Normal
Dengue serology	Negative
IgM scrub typhus	Negative
Widal	Negative
Antinuclear antibodies	Negative
VDRL	Negative
Treponema pallidum	Negative
Haemagglutination	Negative
Antistreptolysin o titre	Negative
Rheumatoid factor	Negative
Pathergy test	Negative

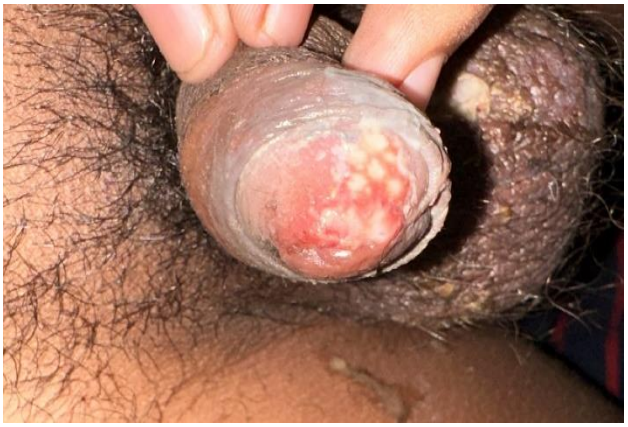

Figure 4: Multiple ulcers on the glans penis.

Figure 5: Congestion of right eye.

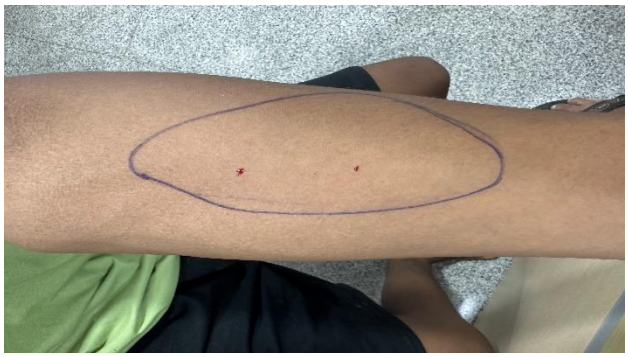

Figure 6: Negative Pathergy test.

In the view of high-grade fever in a young adult with recurrent orogenital ulcers, arthritis, eye involvement and a maculopapular rash in the beginning of illness a clinical diagnosis of Behcet disease was made.

Supportive evidence was increased polymorph leucocytes, ESR and CRP.

In consultation with dermatologists a clinical diagnosis of Behcet disease was reconfirmed and he was started on Kenacort ointment 0.1% for external application on oral and genital ulcers, tablet deflazacort 24 mg once daily orally and tablet colchicine 0.5 mg 6 hourly orally.

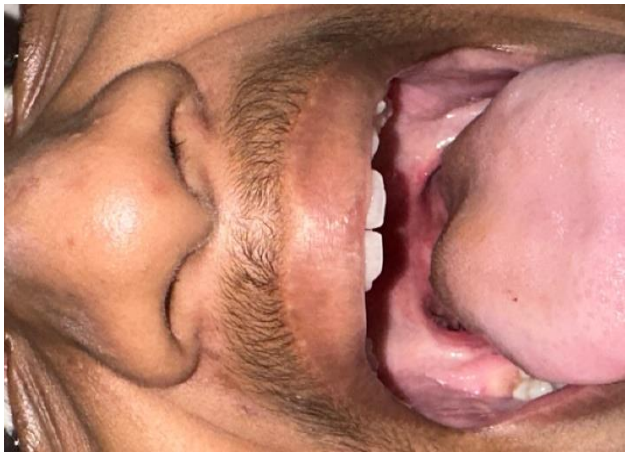

Figure 7: Healing oral ulcer.

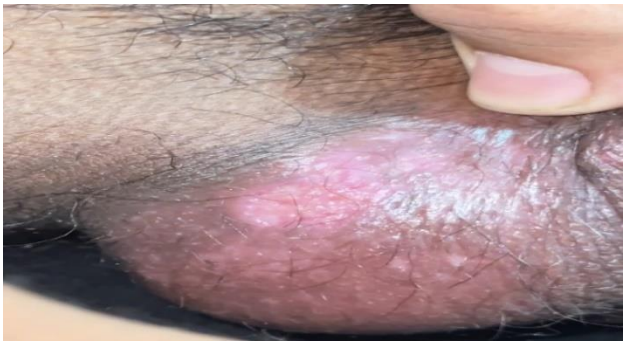

Figure 8: Healing scrotal ulcer.

Patient responded well to the treatment, a review after 5 days revealed no recurrence of fever, oral and scrotal ulcers were healing (Figures 7 and 8). Pain of ulcers on glans penis was reduced but they were active. The eye congestion was completely cleared.

DISCUSSION

Mr. X presented with recurrent oral ulcers and recent genital ulcers. He had a history of arthritis, fever, and skin rash. His eyes were inflamed. In 2014, the international team revised the international criteria for Behcet disease (ICBD).[6] They gave points to each sign and symptoms of Behcet disease. Genital aphthous-2, oral aphthosis-2, skin lesions -2, neurological manifestations-1, vascular manifestations-1, positive pathergy test-1. Patients with an ICBD score of 4 or higher are classified as Behcet disease, our patient scored 6 points confirming the diagnosis of Behcet disease. Though the pathergy test was negative it didn't exclude the diagnosis. He presented at the age of seventeen, this disease is rare before late teens and after 50. Though he does not belong to an ethnicity vulnerable for Behcet disease, Behcet disease is a sporadic disease, and it affects Indians also albeit less frequently.

His investigations revealed high polymorph leucocytes, high erythrocyte sedimentation rate and high C- reactive protein consistent with the Behcet disease. As the inflammatory markers were high and the patient had high fever, he was given intravenous antibiotics and antifungal drugs at primary care as the disease is rare in the community and many medical professionals were not aware of the Behcet disease and there are no specific tests to diagnose it.

Patient has responded well to topical steroids, oral steroids and colchicine, and needs to be tapered off slowly. If he has not responded dapsone, thalidomide, pentoxiphylline, apremilast, azathioprine and interferon-alfa are drugs in the list.[7] He had congestion of the eyes but no involvement of uvea and deeper eye structures which might have required aggressive treatment with systemic steroids and immunosuppressants. Involvement of gastrointestinal system, nervous system, joints, and vascular system required specific approaches depending on severity of the disease. Good response was reported with TNF-alpha antagonist Infliximab and Adalimab in severe and refractory Behcet disease.[8] Prognosis depends on the site of involvement, aneurysms being the most dreaded complication. Uncontrolled eye involvement may lead to blindness and vascular involvement in ischemia. Neurological involvement is usually progressive. Coronary and pulmonary aneurysm rupture carries high mortality. In a study of French patients' mortality was reported 5% at a median follow up of 7.7 years.[9]

CONCLUSION

Behcet disease is a rare disease and has no specific test to confirm diagnosis may lead to delayed or incorrect treatment. Continued medical education and frequent discussion of rare cases in medical meetings should be encouraged to avoid pitfalls. Easy interactions between primary health care providers and specialists should be part of the healthcare system. In the modern era of telemedicine transmitting investigations and photographs is at fingertips and must be utilized in difficult to diagnose cases.

ACKNOWLEDGEMENTS

Authors would like to thank Dr. K. Vasanth Babu, Medical Superintendent, Queen's ÑRI Hospital, Seethammadhara, Visakhapatnam for giving permission to publish this case.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Davatchi F, Chams-Davatchi C, Shams H, Shahram F, Nadji A, Akhlaghi M, et al. Behcet's disease: epidemiology, clinical manifestations, and diagnosis. Expert Rev Clin Immunol. 2017;13 (1):57-65.
2. Behcet H. Uber rezidiverendeaphthose durch ein virus verursachte Geschwure am Mund, am Auge, und an den Genitalien. Dermatol Wochenschr. 1937;105:1152-7.
3. de Menthon M, Lavalley MP, Maldini C, Guillevin L, Mahr A. HLA-B51/B5 and the risk of Behçet's disease: a systematic review and meta-analysis of case-control genetic association studies. Arthritis Rheum. 2009;61(10):1287-96.
4. Hatemi G, Christensen R, Bang D, Bodaghi B, Celik AF, Fortune F, et al. 2018 update of the EULAR recommendations for the management of Behçet's syndrome. Ann Rheum Dis. 2018;77(6):808-18.
5. Rahman S, Daveluy S. Pathergy TestIn: StatPearls. Treasure Island (FL): StatPearls Publishing. 2024.
6. International Team for the Revision of the International Criteria for Behçet's Disease (ITR-ICBD). The International Criteria for Behçet's Disease (ICBD): a collaborative study of 27 countries on the sensitivity and specificity of the new criteria. J Eur Acad Dermatol Venereol. 2014;28(3):338-47.

7. Alibaz-Oner F, Direskeneli H. Advances in the Treatment of Behcet's Disease. Curr Rheumatol Rep. 2021;23(6):47.
8. Vallet H, Riviere S, Sanna A, Deroux A, Moulis G, Addimanda O, et al. Efficacy of anti-TNF alpha in severe and/or refractory Behçet's disease: Multicenter study of 124 patients. J Autoimmun. 2015;62:67-74.
9. Saadoun D, Wechsler B, Desseaux K, LeThi Huong D, Amoura Z, Resche-Rigon M, et al. Mortality in Behçet's disease. Arthritis Rheum. 2010;62(9):2806.

Cite this article as: Nagabhushanarao BV, Narmada V, Nageswararao B, Kumar KS. Orogenital ulcers and the Behcet's disease. Int J Res Med Sci 2024;12:1730-4.