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RESEARCH ARTICLE

A RARE CASE PRESENTATION ON MOORENS ULCER

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Abstract

Peripheral ulcerative keratitis has a rare etiology, according to the authors. Mooren's ulcer is a persistent, excruciating, and chronic ulcerative peripheral keratitis that starts as a narrow, crescent corneal infiltration near the limbus and spreads both centrally and circumferenti ally. A non-infectious peripheral ulcerative keratitis or a peripheral bacterial ulcer are mistaken as Mooren's ulcer.

Introduction:-

Bowman originally characterized Mooren's ocular ulcer in 1849 [1]. McKenzie defined it as an ulcusrodens or corneal chronic serpiginous ulcer [2]. The authors would like to report a 34-year-old male patient who had no systemic illnesses and had Mooren's ulcer, an uncommon cause of peripheral ulcerative keratitis. Patients usually complained of ocular pain and ulcers at the periphery of the cornea when they first arrived, and they were characterized by an overhanging lip of the margin that exclusively affected the anterior corneal layers in right eye [3].There are no other associated systemic diseases with Mooren's ulcer, which is an idiopathic illness. The corneal stroma is the target of antibodies in this autoimmune condition [4]. Mooren's ulcers are frequently misdiagnosed and treated incorrectly; understanding this can assist distinguish and diagnose from other causes of peripheral ulcerative keratitis, such as infective keratitis, pellucid and Terriens marginal degeneration, etc., and enable appropriate response.

Case Report:-

A 34-year-old man complained of pain in right eye for the past two months when he arrived at Maharani Laxmi Bai Medical College, Jhansi, Ophthalmology OPD. Two months ago, the patient seemed to be doing well until he began to complain of pain, a feeling of a foreign body, and photophobia in his right eye, which was accompanied by a clear, watery discharge. The patient subsequently visited a nearby physician, who recommended topical antibiotics and oral painkillers. The symptoms did not go away. After that, the patient kept instilling the same eye drops. After two months, the patient came to our ophthalmology outpatient department (OPD) complaining of excruciating pain in right eye. He provided no history of joint discomfort, vesicles or skin rashes over his face or any other portion of his body, violent trauma, or chemical injuries. There were no systemic illnesses in the patient. The results of the slit lamp examination were as follows: the right eye had a BCVA of 6/24, normal lids, minor circum-corneal congestion, normal iris and sclera, and no anterior chamber reaction. Between four and seven o'clock, the cornea had a peripheral ulcer inferiorly. The ulcer was crescentic in shape and progressed over time. It had an overhanging edge and was severely eroded. Stromal melting was evident. The area between the ulcer and the limbus was not clearly

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defined. Where the ulcer must have first spread, a thinner, scarred, and vascularized cornea was observed inferiorly (Figs. 1).Along with having a BCVA of 6/18 and normal lids, sclera, iris, and anterior chamber& no other significant finding.

Investigations revealed normal hemoglobin, RBC, WBC, and ESR:-
The patient had negative serology results for Hepatitis C, RA factor (rheumatoid arthritis), ANA (systemic lupus erythematous), and VDRL (suspicious syphilis). The results of the Liver and Renal Function Tests were normal.In order to prevent further infection, our patient underwent conjunctival recession under local anesthesia, two clock hours on either side of the ulcer, and 4 mm posterior to the corneoscleral limbus. Following surgery, prednisolone acetate 1% per hour was administered, and topical antibiotics were started. After a follow-up, the ulcer had healed without progressing, however the corneal scarring had not improved vision.

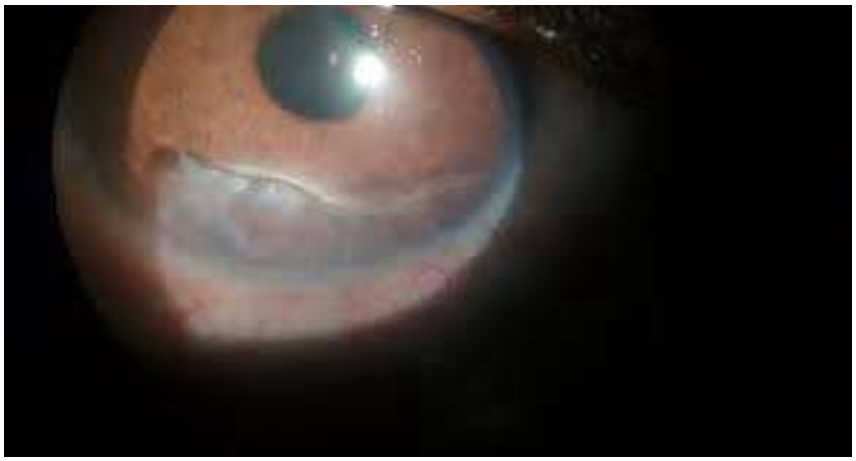

Fig-1: Right eye on slit lamp with diffuse illumination showing ulcer in inferior margin of cornea

Discussion:-

Mooren's ulcer is a rare disorder that primarily affects adults without systemic diseases, while it can sometimes occur in children [5, 6]. Young men from Nigeria are most frequently affected [7]. Ulcers have been categorized by Wood and Kaufman [8]. In elderly patients, type I is a benign or normal Mooren's ulcer that is unilateral, has mild to moderate symptoms, and responds well to medication and surgery. In 75% of instances, type II is a bilateral atypical or malignant Mooren's ulcer that presents with considerable pain and other symptoms. It typically affects younger people and does not respond well to treatment [9]. The following conditions are linked to Mooren's ulcer: helminth, hepatitis C infection, herpes simplex, zoster, syphilis, TB, trauma, foreign bodies, chemical burns, and, following cataract surgery, penetrating keratoplasty and lamellar keratoplasty [10,11]. Although the precise etiology of Moore's ulcer is uncertain, the autoimmune explanation is supported by pathological examination of the affected area, which reveals plasma cells, neutrophils, mast cells, and eosinophils [12]. Using the indirect immunological fluorescence method, Schaap and his associates discovered circulating IgG and IgA antibodies in cells of the cornea and conjunctival epithelium [13]. According to Martin and associates, corneal antigen can change as a result of any infection, trauma, or systemic illness [14].

Patients with Mooren's ulcers have pain that is accompanied by redness, wetness, photophobia, and blurred vision from irregular astigmatism, iritis, and corneal opacity. The limbus is where the ulceration first starts, and it then moves toward the cornea's center. Mooren's ulcer is characterized by the overhanging of the ulcer's margins due to involvement of the corneal stroma. It may be linked to cataracts, glaucoma, iritis, and infrequently, ulcer perforations [15]. Complete blood count, erythrocyte sedimentation rate, rheumatoid factor, complement fixation, antinuclear antibodies, anti-neutrophil cytoplasmic antibodies, circulating immune complexes, liver function tests, renal function tests, tests to detect treponemal infection such as VDRL test, urine analysis with microscopy, and chest X-ray are some of the laboratory tests that can be used to diagnose Mooren's ulcer. Prednisolone acetate or phosphate is used to initiate topical steroidal therapy. Topical antibiotics and cycloplegics are also administered to prevent subsequent infections [16]. If topical steroids are ineffective after 7–10 days, deep infiltrating ulcers can be treated with systemic steroids, such as prednisolone [17]. Because it stops perforations, therapeutic bandaging contact lenses will be beneficial. Interferon alpha eyedrops are created by diluting injectable recombinant IFN-2

alpha with a balanced salt solution free of preservatives. One million international units per milliliter is its concentration. For the first week, it can be provided on a two-hourly basis. Systemic immunosuppressive drugs, such as cyclophosphamide, methotrexate, and azathioprine, can also be employed. A medication called cyclosporine has been utilized recently; it helps to lower the number of helper T cells and increases suppressor T cells, which slows the progression of the disease [18]. Topical or subconjunctival anesthetic can also be used for conjunctival recession. Bare sclera excision is the method used for conjunctival excision. To stop the inflammatory process, partial penetrating keratoplasty and superficial lamellar keratectomy may be performed. Tissue adhesives are used to treat perforations.

Conclusion:-

Our patient's ulcer was healed by conjunctival recession using topical corticosteroid and antibiotic eye drops, an ancient method that may not even be effective. To prevent surgery, further research is needed to determine the efficacy and dependability of novel treatments.

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