INTRODUCTION

Angular cheilitis is inflammation of one, or more commonly both of the corners of the mouth. Initially, the corners of the mouth develop a gray-white thickening and adjacent erythema (redness). Later, the usual appearance is a roughly triangular area of erythema, edema (swelling) and maceration at either corner of the mouth. Typically the lesions give symptoms of soreness, pain, pruritus (itching) or burning or a raw feeling in the later stage. Angular cheilitis often represents an opportunistic infection of fungi and/or bacteria, with multiple local and systemic predisposing factors involved in the initiation and persistence of the lesion. Such factors include nutritional deficiencies, over closure of the mouth, dry mouth, a lip-licking habit, drooling, and immunosuppression. Treatment for angular cheilitis is based on the exact causes of the condition in each case, but often an antifungal cream is used among other measures.

CASE REPORTS

CASE 1

In July 2014, a 52 years old male attended Oral Diagnosis and Medicine Department of Sir Syed Dental Hospital. His chief complaint was pain in upper right side of teeth, particularly in third molar since 25 days. Pain was severe and intermittent in nature, radiated towards head, aggravated on eating food and relieved by analgesic. During intra oral examination upper right third molar was found grossly carious. Working diagnosis was reversible pulpitis and an OPG x-ray was taken. He was advised to have extraction of this tooth because it was grossly carious. Working diagnosis was reversible pulpitis and an OPG x-ray was taken. He was advised to have extraction of this tooth because it was grossly carious. During further facial and oral examination angular cheilitis was detected but the patient was not aware of it. He had a history of diabetes mellitus type 2 and high blood pressure since 15 years. The patient stated that he measured his diabetes with glucose meter at house and random blood sugar this morning was 250mg/dl. While taking history related to angular cheilitis, he described this condition is asymptomatic. On examination the lesions was symmetrically present on both sides of the mouth. The corners of the mouth developed a gray-white thickening and adjacent erythema (redness), which means that it was an initial stage (Fig 1). In the later stage, erythema, edema (swelling) and maceration at either corner of the mouth can give symptoms of soreness, pain, pruritus (itching) or burning or a raw feeling. Hence, patient was fully informed about the condition that angular chelitis is a fungal infection which is caused by his uncontrolled diabetes, poor oral health and other oral complications. The chances of the oral complications will be mini-mized if the disease is well-controlled. Additionally, he was asked for regular visit to the dentist (which is very important in diabetic patients for timely prevention and management of oral complications) and was prescribed miconazole gel 25mg/ml QDS for 14 days. On second visit there was marked improvement in his condition.
CASE 2

In September 2014, a 33 years old female attended Oral Diagnosis and Medicine Department of Sir Syed Dental Hospital. Her chief complaint was pain in upper right side of teeth since 3 days. Pain was severe and continuous in nature, non-radiating, aggravated on eating food and was not relieved by taking medicine. During intra oral examination her upper right second pre molar had broken down root. Diagnosis of infected BDR was made because periapical radiolucency was noticeable on x-ray. Therefore, she was advised to get the infected roots removed. During facial and oral examination unilateral angular cheilitis and geographic tongue was also noticed (Fig 2) and patient had mild discomfort at the angle of the mouth and the tongue. Her conjunctivae were pale and nails were brittle. Hence, advised for CBC (laboratory test) but she refused because that was not her chief complaint. Accordingly, we only prescribed her miconazole gel QDS for 2 weeks for angular chelitis and benzydamine hydrochloride mouth wash 12% BD for the relief of geographic tongue discomfort.

CASE 3

In July, a 25 years old female came in OPD of oral diagnosis and medicine department of Sir Syed Dental Hospital with the complaint of pain in lower left side of teeth since 3 days. Pain was sharp continuous and radiating in nature. It usually aggravated while lying horizontally and was relieved on taking medicine. A diagnosis of reversible pulpitis was made and she was advised to have a confirmatory periapical radiograph. After that she was referred to endodontics department for RCT followed by crown. On extra and intra oral examination she was also diagnosed with angular cheilitis unilaterally on right side of the angle of mouth (Fig 3). While taking further history she said that she had filling of upper right first molar last week by some other dentist, since then she have erythema and discomfort on right side. Her medical history was unremarkable and the diagnosis of angular cheilitis was made due to long treatment procedure of filling. She was prescribed miconazole gel QDS for 2 weeks and on her next follow up after a week time angular chelitis was completely resolved.

DISCUSSION

Angular cheilitis is a relatively common condition, accounting for between 0.7-3.8% of oral mucosal lesions in adults and between 0.2-15.1% in children, though overall it occurs most commonly in adults in the third to sixth decades of life.¹ It occurs worldwide, and both males and females are affected.¹ Angular cheilitis is the most common presentation of fungal and bacterial infections of the lips.² Angular cheilitis appears

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Fig 1: A 52 years old male with angular chelitis

Fig 2: Angular chelitis on right side of angle of mouth and geographic tongue

Fig 3: Angular Cheilitis on right side of the angle of mouth
Angular Cheilitis: Case Reports And Literature Review

as redness or as fissures at the corners of the mouth involving the junction of the mucosa and may also represent a form of candidiasis.³ The lesions are more commonly symmetrically present on both sides of the mouth but sometimes only one side may be affected. In some cases, the lesion may be confined to the mucosa of the lips, and in other cases the lesion may extend past the vermilion border (the edge where the lining on the lips becomes the skin on the face) onto the facial skin.³ Angular cheilitis occur significantly more frequently in diabetic than in non-diabetic patients.⁸ Other causes of angular cheilitis that should be included in a differential diagnosis include vitamin deficiencies, anemia, staphylococcal infections, and decrease in face height caused by mouth over closure from loss of teeth.⁷ In people with angular cheilitis who wear dentures, often there may be erythematous mucosa underneath the denture (normally the upper denture), an appearance consistent with denture-related stomatitis.¹ On the basis of clinical finding, an erythematous fissure at the angles of the mouth, a diagnosis of angular cheilitis is determined.⁸ The skin lesions should also be swabbed. Microbial cultures and a haematological workup (blood picture, and assays of levels of serum iron/ferritin, serum vitamin B₁₂ and corrected red blood cell folate) are indicated when systemic involvement is suspected. Diagnosis is often supported by investigations, especially if there are associated lesions such as ulceration and /or glossitis.¹¹ The treatment of angular cheilitis is highly dependent on the cause, so the underlying disease should be treated. If Candida is implicated, an antifungal ointment like ketoconazole should be prescribed,¹¹ the use of miconazole nitrate 2% gel applied topically four times a day for 2 weeks is very effective treatment option.¹¹ These substances should be applied to the affected area. When Staphylococcus aureus is implicated, topical treatment with a combination of mupirocin or fusidic acid and 1% hydrocortisone cream (to counter inflammation) works effectively. This can be applied to the angles of the mouth.¹¹

REFERENCES

9 Eric T. Stoopler, DMD, FDS RCSEd; Christine Nadeau, DMD; Thomas P. Sollecito, DMD, FDS RCSEd, Angular Cheilitis, J Can Dent Assoc 2013; 79: d68.