# A Viral Outcome

**Cyriac Abby Philips**

Department of Hepatology and Transplant Medicine, Institute of Liver and Biliary Sciences New Delhi, India

## Abstract

*Lichen planus is a muco-cutaneous inflammatory disease of unknown origin which affects various regions of the body, mostly skin and oral mucosa. The association of lichen planus with chronic hepatitis C infection is well known, but a primary presentation of chronic hepatitis C infection with lichen planus is quite rare. In this report, a middle aged woman is presented, who had features of isolated severe ulcerating lichen planus of the tongue in whom an eventual diagnosis of chronic hepatitis C infection was made; one which responded to antiviral therapy.*

**Keywords:** Lichen planus, Hepatitis C, tongue lesions, inflammatory lesions, muco-cutaneous disease

(Rec.Date: Feb 22, 2015 Accept Date: March 18, 2015)

**Corresponding Author***:* Dr Cyriac Abby Philips, Senior Fellow, Department of Liver and Biliary Sciences, New Delhi 110070, India
**Email:** abbyphilips@gmail.com **Phone:** +919540951059

## Introduction

Hepatitis C virus (HCV) was first discovered in 1989 by Choo and co-workers. It is considered to be one of the common causes of cirrhosis and hepatocellular carcinoma in the Western world. However, apart from these, HCV is known to cause various important extrahepatic disease manifestations such as membranoproliferative glomerulonephritis, mixed cryoglobulinemia, Sjogren's syndrome, lymphomas, porphyria cutanea tarda, autoimmune thyroiditis and lichen planus. HCV infection can primarily present with any of these extrahepatic diseases. The occurrence of lichen planus, a mucocutaneous inflammatory disease as an index presentation of HCV infection is quite rare, even more so, when it is oral lichen planus and limited to the tongue. Here, a patient is presented, who was evaluated for isolated oral lichen planus of the tongue and in whom a diagnosis of HCV infection was made. She responded well to antiviral therapy with intensity of lichen planus decreasing on treatment with improvement in quality of life.

## Report

A 58 year old housewife from Northern India, asymptomatic until 3 weeks back, was referred to our clinic with complains of burning sensation and pain over the tongue that was not related to type of food intake. She denied similar symptoms in the past and there was no history suggestive of cutaneous or genital involvement. Her symptoms worsened with raised painful ulcerative lesions waxing and waning over time. She denied gastrointestinal symptoms, jaundice, bleeding diathesis and recurrent fever episodes. Her past history was positive for six units blood transfusion at the age of 14 years when she had sustained polytrauma due to road traffic accident. On examination, the tongue showed features of raised, polygonal and flat topped to nodular violaceous lesions with interspersed areas of ulceration, mild ooze and areas with lacy white reticular pattern. The lesions extended to the lateral aspects of tongue. A diagnosis of erosive lichen planus of the tongue was made [Figure 1]. Further investigations revealed the presence of chronic hepatitis C virus infection (Genotype 3a, HCV RNA 3.38x108) with liver biopsy showing histological activity index of 8 and fibrosis score 3.

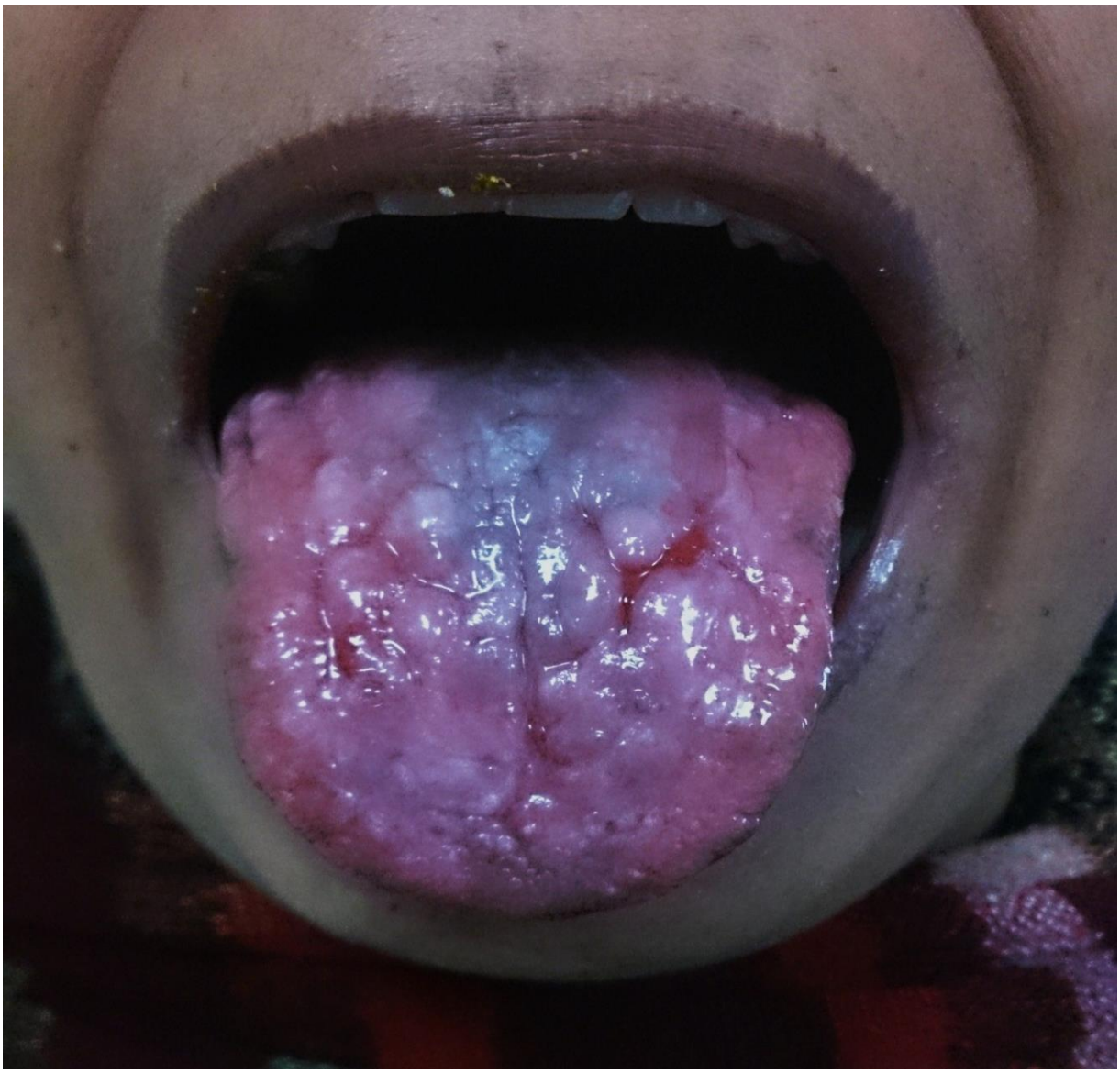

**Figure 1.** Oral lichen planus isolated to the tongue

## Discussion

Lichen planus (LP) is an inflammatory disease of unknown origin affecting most commonly, the mucocutaneous regions. The clinical presentation differs with type of area involved. Oral LP presents with symmetric reticular lesions resembling white lacy network with papules, plaques, erythema and nodular erosions. The erosive form is quite painful, unlike the cutaneous lesions that are severely pruritic [1]. Oral LP has been shown to have an association with chronic hepatitis C (HCV) virus infection, mostly in patients of Mediterranean origin and

also Northern Europe. In two meta-analyses, patients with LP were found to have around 5 times as likely as controles to be positive for HCV and LP was found to develop 2.5-4.5 times more in HCV seropositive individuals [2]. The LP associated with HCV is particularly seen among patients with HLA DR6 allele genomic. In HCV patients who are asymptomatic for liver disease, the presence of LP and early diagnosis of underlying liver disease through screening could improve outcomes pertaining to liver disease [3]. Various theories have been circulating regarding oral LP development in patients with HCV even though none of these are proven yet. One theorem states that due to high mutation rates of the virus, repeated activation of immune cells lead to increased probability of cross reaction with self tissue and subsequent risk of development of autoimmune pathology [4]. Oral LP when erosive needs treatment for symptomatic relief. Topical gluco-corticoids are the first line therapy. Our patient was started on betamethasone valerate topical after which she had showed substantial improvement. In the absence of improvement, oral glucocorticoids at 0.5-1 mg/kg is standard therapy, given for 4-6 weeks, with tapering subsequently. For popular or plaque like oral LP, topical steroids and/or retinoids are considered first line treatment [5]. Ultimately, treatment of HCV need to be undertaken as this manifestation usually occurs in the presence of high viral replicative activity as was seen in our patient. She was started on interferon and ribavarin based regimen as per standard guidelines and is currently doing well, at 3 weeks follow up. Our patient was unique in the sense, she the index presentation of HCV infection was that of isolated tongue LP. In the presence atypical oral LP, as seen in our patient, isolated to tongue, the need to screen for HCV infection becomes an important part of patient care as a whole, rather than treating only what is starkly evident.

**References**

1. Bermejo-Fenoll A, Sánchez-Siles M, López-Jornet P, Camacho-Alonso F, Salazar-Sánchez N. A retrospective clinicopathological study of 550 patients with oral lichen planus in south-eastern Spain. J Oral Pathol Med. 2010;39(6):491-6.
2. Lodi G, Pellicano R, Carrozzo M. Hepatitis C virus infection and lichen planus: a systematic review with meta-analysis. Oral Dis. 2010;16(7):601-12.
3. Carrozzo M. Oral diseases associated with hepatitis C virus infection. Part 2: lichen planus and other diseases. Oral Dis. 2008;14(3):217-28.
4. Chainani-Wu N, Lozada-Nur F, Terrault N. Hepatitis C virus and lichen planus: a review. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2004;98(2):171-83.
5. Le Cleach L, Chosidow O. Clinical practice. Lichen planus. N Engl J Med. 2012;366(8):723-32.