

## Parotid gland oncocytoma in HCV-positive patient with non-Hodgkin's lymphoma. Case report

G. FINI<sup>1</sup>, F. CASCINO<sup>2</sup>, L.M. MORICCA<sup>2</sup>, C.M. SCANNAVINO<sup>1</sup>, E. MICI<sup>1</sup>, R. MEROLA<sup>3</sup>, M.S. MALAVENDA<sup>3</sup>, D. KRIZZUK<sup>3</sup>, A. MATURO<sup>3</sup>, V. PASTA<sup>3</sup>

**SUMMARY:** Parotid gland oncocytoma in HCV-positive patient with non-Hodgkin's lymphoma. Case report.

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*We report a case of parotid gland oncocytoma in a patient with chronic infection from hepatitis C virus (HCV) and associated non-Hodgkin's lymphoma and xerophthalmia. Our case confirms the triple tropism of the HCV: hepatotropism, lymphotropism and sialotropism.*

**RIASSUNTO:** Oncocitoma parotideo in paziente HCV-positiva affetta da linfoma non-Hodgkin. Caso clinico.

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*Riportiamo un caso di oncocitoma della ghiandola parotide in una paziente con infezione cronica da virus dell'epatite C (HCV) e associati linfoma non Hodgkin e xerofthalmia. Il caso descritto conferma il triplo tropismo dell'HCV: epatotropismo, linfotropismo e sialotropismo.*

KEY WORDS: HCV - Parotid Gland - Oncocytoma - Non-Hodgkin's lymphoma - Xerophthalmia - Surgery.  
Virus dell'epatite C (HCV) - Parotide - Oncocitoma - Linfoma non Hodgkin - Xerofthalmia - Chirurgia.

### Introduction

The worldwide prevalence of hepatitis C virus (HCV) is estimated to be around 3%, with about 170 million people with confirmed seropositivity. In addition to its well-known correlation with the specific hepatitis (previously known as non-A non-B hepatitis, until the viral agent was identified), HCV infection can give rise to numerous other signs than those of liver damage, which can be correlated with what has been defined as the triple tropism of the virus: hepatotropism, lymphotropism and sialotropism (1).

We report a case of parotid gland oncocytoma in a patient with chronic HCV infection and non-Hodgkin's lymphoma.

### Case report

MRM, a 70-year-old woman with non-Hodgkin's lymphoma (NHL) under post-chemotherapy remission for two years, had been referred to a hematologist for the evaluation of a growth in the left parotid gland found incidentally during a follow-up ultrasound examination. The growth (15x10x11 mm) was located in the superficial portion of the gland and had the appearance of a pleomorphic adenoma. The patient had tested positive for HCV during a routine checkup at the age of 56, and was diagnosed with NHL 9 years later.

No dissymmetry or nerve damage was evident on examination of the face. The parotid region was painful on palpation. The presence of the growth observed on ultrasound was confirmed, and found to be hard and elastic with indistinct margins, not adherent to the skin. Xerophthalmia was also observed and Sjögren's syndrome suspected. However, this was not confirmed by antibody testing.

Intraoperatively, the parotid gland as a whole appeared enlarged. The growth was located along the anterior border of the gland, and was in close contact with the masseter muscle fibers. Left superficial parotidectomy was carried out, with careful dissection of the growth from the muscle fibers (Fig. 1).

The postoperative course was normal. Histological examination revealed widespread chronic lymphocytic infiltration of the parotid tissue. The appearance of the resected growth was compatible with the diagnosis of oncocytoma (Fig. 2).

No locoregional recurrence was found on clinical and instrumental follow-up after 12 months and the absence of nerve damage was confirmed.

<sup>1</sup> "Sapienza" University of Rome, Italy  
Department of Neurosciences, Mental Health and Sensory Organs (NESMOS), Second Faculty of Medicine and Surgery

<sup>2</sup> Umberto I<sup>o</sup> Hospital, "Sapienza" University of Rome, Italy  
Graduate School in Maxillo-Facial Surgery

<sup>3</sup> Umberto I<sup>o</sup> Hospital, "Sapienza" University of Rome, Italy  
Department of Surgical Sciences

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Fig. 1 - Surgical specimen.

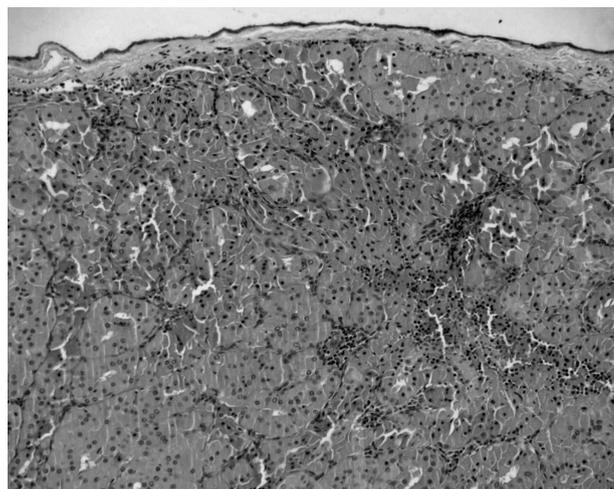


Fig. 2 - Histology (Hematoxylin-Eosin, 10x).

*Review of personal caseload*

To search for further confirmation of the triple tropism of HCV revealed in the case described, we examined the medical records of another six patients with chronic hepatitis due to HCV infection coming to our attention over the last three years due to enlargement and/or tenderness in the parotid region.

The features of all seven cases are summarized in Table 1.

**Discussion**

HCV is a single strand RNA virus of the Flavivirus family. It is mainly transmitted parenterally (blood transfusion, surgery, tattoos, etc.). The 60-80% of cases of HCV infection evolve to chronic hepatitis. After some

TABLE 1 - PATIENT CHARACTERISTICS.

Patient	Sex	Duration of chronic hepatitis (years)	Surgery	Lymphocytic infiltration of the parotid gland	Parotid tumor	Other HCV-correlated signs
LM	M	8	Superficial parotidectomy	Yes	Oncocytoma	No
PB	F	9	Superficial parotidectomy	Yes	Oncocytoma	No
SD	M	5	No	Yes (fine needle aspiration)	No	No
AM	M	5	No	Yes (fine needle aspiration)	No	No
RP	M	4	No	Yes (fine needle aspiration)	No	No
EF	F	6	No	Yes (fine needle aspiration)	No	No
MRM	F	14	Superficial parotidectomy	Yes	Oncocytoma	Non-Hodgkin's lymphoma Xerophthalmia (Sjögren-like syndrome)

years, 20-30% of these patients present cirrhosis or hepatocellular carcinoma.

However, the infection also affects various organs outside the liver (1-12), which can all be attributed to the so-called triple tropism of the virus (1). The association between HCV infection and non-Hodgkin's lymphoma is probably not random, as the virus is found in around a third of patients with NHL (2-5). It is thought that HCV infection may be a chronic immune system trigger favoring the onset of autoimmune diseases (such as Sjögren's syndrome) and malignant B-cell tumors (3-5). NHL is a not-uncommon complication of Sjögren's syndrome (5).

Numerous studies have demonstrated that the exocrine glands, and particularly the lacrimal and salivary glands, are affected in up to 80% of HCV-positive patients (3, 6-11). Sialadenitis in these patients often simulates the salivary gland inflammation found in Sjögren's syndrome, although the specific autoimmune antibodies are obviously absent. On the other hand, 40% of patients with Sjögren's syndrome also test positive for anti-HCV antibodies (4,5,11). An Italian study (12) found HCV RNA in the saliva, but only in patients with a high serum HCV load. However, a subsequent Spanish study (11) found no correlation between the pre-

sence of virus in the salivary glands and levels in the serum, and also found that the HCV was capable of active replication in the salivary glands (12). The persistence of HCV in the salivary glands could induce chronic lymphocytic sialadenitis (Sjögren-like syndrome) as well as, in all probability, cell metaplasia, possibly causing the onset of tumors.

Our experience confirms the correlation between chronic HCV infection, non-Hodgkin's lymphoma, chronic lymphocytic sialadenitis (Sjögren-like syndrome) and parotid gland oncocytoma. The tumor too is probably correlated with the HCV infection.

## Conclusions

HCV can damage not only the liver but also other organs, particularly the lymphatic tissue and exocrine glands. This triple tropism is clearly demonstrated by the case presented herein (patient MRM), in whom both xerophthalmia, typical of Sjögren's syndrome, and oncocytoma were observed. There is clearly a need for careful observation of HCV-positive patients, with monitoring not only of liver function but also of the lymphatic system and salivary glands.

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