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RESEARCH ARTICLE

PAROTITIS WITH ORCHITIS IN ACUTE HCV- A RARE ASSOCIATION

Parveen Malhotra, Yogesh Sanwariya, Senti, Jatin Kumar, Harman Singh and Sandeep Kumar
Department of Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.

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Abstract

Case report:A male of fourteen years, having non-significant past history, was detected to be sufferingfrom acute hepatitis C virus (HCV) infection, presented with acuteonset of gradually progressive bilateral painful enlargement of parotid glands which was followed by bilateral painful orchitis. His HCV RNA quantitative load was 765421 I.U./ml with hyperbilirubinemia and transaminitis.The ultrasound abdomen revealed mild hepatomegaly with gall bladder wall oedema suggestive of acute hepatitis. He had no evidence of cirrhosis as evidenced by normal Fibroscan score of 6.5. At the time of first consultation, his mental status was normal without any fever but was having mild nausea and generalized weakness. His bilateral parotid glands were enlarged and painful for last one week. He also developed bilateral painful orchitis after five days of developing parotitis. He was started on antiviral treatment for hepatitis C for total of 12 weeks duration but his bilateral parotitis and orchitis subsided within three weeks of starting of treatment. He completed his 12 weeks antiviral treatment and later on achieved 12 weeks sustained virological response (SVR), as evidenced by complete absence of HCV RNA on polymerase chain testing (PCR) report. He has been followed for one and half year and repeat HCV RNA test and clinical examination for relapse is non-contributory.
Conclusion: Our case reportis an uncommon extrahepatic manifestation of acute HCV case of bilateral parotitis in an acute hepatitis C patient. There is paucity of data regardingparotitis and orchitis with acute hepatitis C infection, hence merits vigil for the same by the treating health care specialist.

Introduction:-

Case Report

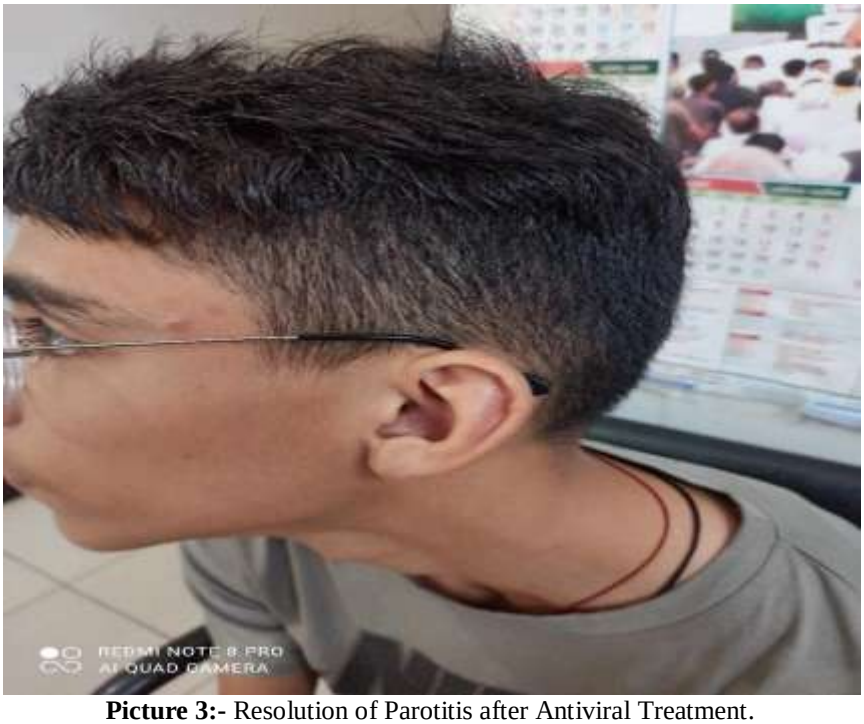
A male of fourteen years, having non-significant past history, was detected to be suffering from acute hepatitis C virus (HCV) infection, presented with acute onset of gradually progressive bilateral painful enlargement of parotid glands which was followed by bilateral painful orchitis. His HCV RNA quantitative load was 765421 I.U./ml with hyperbilirubinemia and transaminitis. The ultrasound abdomen revealed mild hepatomegaly with gall bladder wall oedema suggestive of acute hepatitis. He had no evidence of cirrhosis as evidenced by normal Fibroscan score of 6.5. At the time of first consultation, his mental status was normal without any fever was but was having mild nausea and generalized weakness. The general physical and systemic examination was essentially normal. The hemogram showed hemoglobin of 11.8 g/dL, leucocyte counts of 21,300/L, normocytic normochromic anemia. The

Corresponding Author:- Parveen Malhotra
Address:- Department of Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.

LFT, RFT, INR, T3, T4, TSH, blood sugar, autoimmune profile, Viral screen except HCV were all normal. His bilateral parotid glands were enlarged and painful for last one week. He also developed bilateral painful orchitis after five days of developing parotitis. He was started on antiviral treatment for hepatitis C for total of 12 weeks duration but his bilateral parotitis and orchitis subsided within three weeks of starting of treatment. He completed his 12 weeks antiviral treatment and later on achieved 12 weeks sustained virological response (SVR), as evidenced by complete absence of HCV RNA on polymerase chain testing (PCR) report. Till date, after one and half year of follow up he is living healthy life and had no relapse of parotitis or HCV infection, as evidenced by HCV RNA Quantitative report.

Picture 1:- Showing Parotitis in Acute HCV

Picture 2:- Showing Orchitis in Acute HCV.



Picture 3:- Resolution of Parotitis after Antiviral Treatment.

Discussion:-

HCV infection is a significant pan global illness affecting large population. The availability of direct-acting antivirals (DAAs) has made therapy very effective [2]. The main impact of HCV is on liver, but it can affect different parts of body including oral cavity [1], like oral lichen planus (OLP), xerostomia, and Sjögren's syndrome. The hepatitis C virus infection causes immune complex formation, cryoglobulinemia, in addition to direct viral effects on different parts of body causing mixed cryoglobulinemia syndrome, dermatological, ocular, neurological, thyroid, renal and pulmonary abnormalities [3-6]. Cryoglobulinemia lead to organ damage by hyper viscosity syndrome or immune-mediated mechanisms [7]. The HCV RNA interaction with B cells is essential for HCV pathogenesis and further development lymphoproliferative disorders and future risk of non-Hodgkin's lymphoma [8,9]. In HCV infection, xerostomia, OLP and periodontal disease have been seen in many case series and causes inflammatory & autoimmune responses in oral cavity [10,11]. HCV has potential to multiply in oral epithelium but its presentation varies from asymptomatic stage to development of Sjogren's syndrome (SS), chronic lymphocytic sialadenitis andparotid non-Hodgkin's lymphoma [13-16]. In one study,53 patients out of 310 (17%)had abnormalities of the parotid gland: only 5patients (9.4%) reported symptoms consistentwith parotid involvement, such as local pain (3cases) or stiffness during chewing or swallowing (2 cases); 13 out of 53 (24.5%) had parotid swelling at manual examination; in 30 cases(56.6%) ultrasound scan documented differentparotid abnormalities, such as cystic lesions (18cases, 60%), hypoechogenic masses (10 cases,33.3%) and diffuse echo graphic dishomogeneity (2 cases, 6.7%) [17].Many previous studieshave already reported that several parotidealdiseases, including Systemic sclerosis (SS) and chronic lymphocyticsialadenitis, occur more frequently among chronic hepatitis C patients [15, 18, 19].In our experience of fourteen years after treating thirty thousand HCV patients, this is a rare case where acute parotitis along with orchitis has been seen with HCVinfection.

Conclusion:-

Theparotid gland is a relevant target for HCV. The targeted diagnostic protocols may help in identifying parotid involvementamong HCV-infected individuals. Our case report is an uncommon extrahepatic manifestation of acute HCV case of bilateral parotitis in an acute hepatitis C patient. There is paucity of data regarding parotitis and orchitis with acute hepatitis C infection, hence merits vigil for the same by the treating health care specialist.

Conflict Of Interest

The authors declare that there was no conflict of interest and consent was taken from patient as well as parents before publishing this case report.

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