



HEPATOCELLULAR CARCINOMA ASSOCIATED WITH HEPATITIS C VIRUS INFECTION IN COLOMBIA

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INTRODUCTION

The estimated incidence of liver cancer in Colombia is <3.3/100.000 population. Hepatitis C virus (HCV) and/or Hepatitis B virus (HBV) infection is the main risk factor on 80% of hepatocellular carcinoma (HCC) cases. Our purpose is to describe the casuistics of HCC in Colombia and its association to HCV infection in the period between 1995 and 2004 and to determine p53 protein expression.

METHODOLOGY

A database of HCC cases at the Departments of Pathology of the University of Antioquia, Pablo Tobon Uribe Hospital in Medellin and the University Hospital in Cali was created. HCV Core and p53 proteins were detected by immunohistochemistry of paraffin-embedded tissues using human monoclonal anti-Core B12.F8 antibody (gift from Dr. Mario Mondelli, University of Pavia, Italy) and anti-p53 DO7 antibody (Novocastra, UK), respectively.

RESULTS

A total of 138 HCC cases were identified between 1995 and 2004 with age ranging from 13 to 87 years; 48,2% of cases corresponded to patients aged 60 years and greater. The most frequent histological type of HCC cases corresponded to the trabecular type (21 out of 32), followed by the tubular type (7 out of 32). Regarding the degree of tissue differentiation, it was observed that 42,9% (9 out of 21) of cases corresponded to clearly differentiated carcinomas, 33,3% (7 out of 21) to moderately differentiated, whereas 23,8% (5 out of 21) corresponded to undifferentiated carcinomas. Sixty five samples of paraffin-embedded liver tumor tissue were processed by immunohistochemistry for HCV Core and p53 protein detection, only in 47 cases analysis was possible. Immunohistochemistry analysis showed overexpression of p53 protein in 22 cases and HCV Core protein was detected in 11 cases. We demonstrated simultaneous expression of both proteins in 3 cases, this double expression was associated with the undifferentiated state of the tumor.

CONCLUSIONS

From 138 HCC cases were found during the last ten years at 3 hospitals in Colombia, 65 have been analysed by immunohistochemistry for the detection of HCV Core protein and cellular p53 protein. Simultaneous expression of p53 and Core proteins was

detected in 4 cases associated to the undifferentiated state of carcinoma. HCC cases associated to HCV infection corresponds as expected to HCC epidemiological profile in Colombia where HBV infection is more prevalent. At the present time, we will advance into detection of the viral genome and semiquantitative expression of the p53 protein in fresh frozen tissue.