

# IMPACT OF COMORBIDITY ON THE SURVIVAL OF PATIENTS WITH CHOLANGIOCARCINOMA.

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## Background

Cholangiocarcinoma is the second most common primary malignant tumor of the liver. It accounts for about 3% of all gastrointestinal cancers globally. Cholangiocarcinoma (CCA) is a progressively fatal disease which generally occurs due to malignant transformation of hepatic biliary cholangiocytes. The incidence rates of CCA have been increasing worldwide and there is an urgent need requirement for effective diagnosis and treatment strategies against this devastating disease. Different factors including liver-fluke disease infestation, viral hepatitis, exogenous nitrosamine-mediated DNA damage, and chronic inflammation have been linked to CCA genesis.

## Methods

A total of 51 patients diagnosed with cholangiocarcinoma between 2010 and 2014 were analyzed.

We reviewed the clinical charts retrospectively according to the following inclusion criteria: histologically proven primary adenocarcinoma arising from the bile-duct epithelium.

Data from of risk factors, presentation, management, classification and outcome were assessed by through the review of the clinical charts. Comorbidity was evaluated using the Charlson comorbidity index (CCI). The American Joint Committee on Cancer (AJCC) 2003 criteria were used for TNM (tumor, node, metastases).

## Objective

Our primary goal is to determinate the impact of comorbidity on survival in a number of patients with cholangiocarcinoma and to evaluate prognostic factors.

## Results

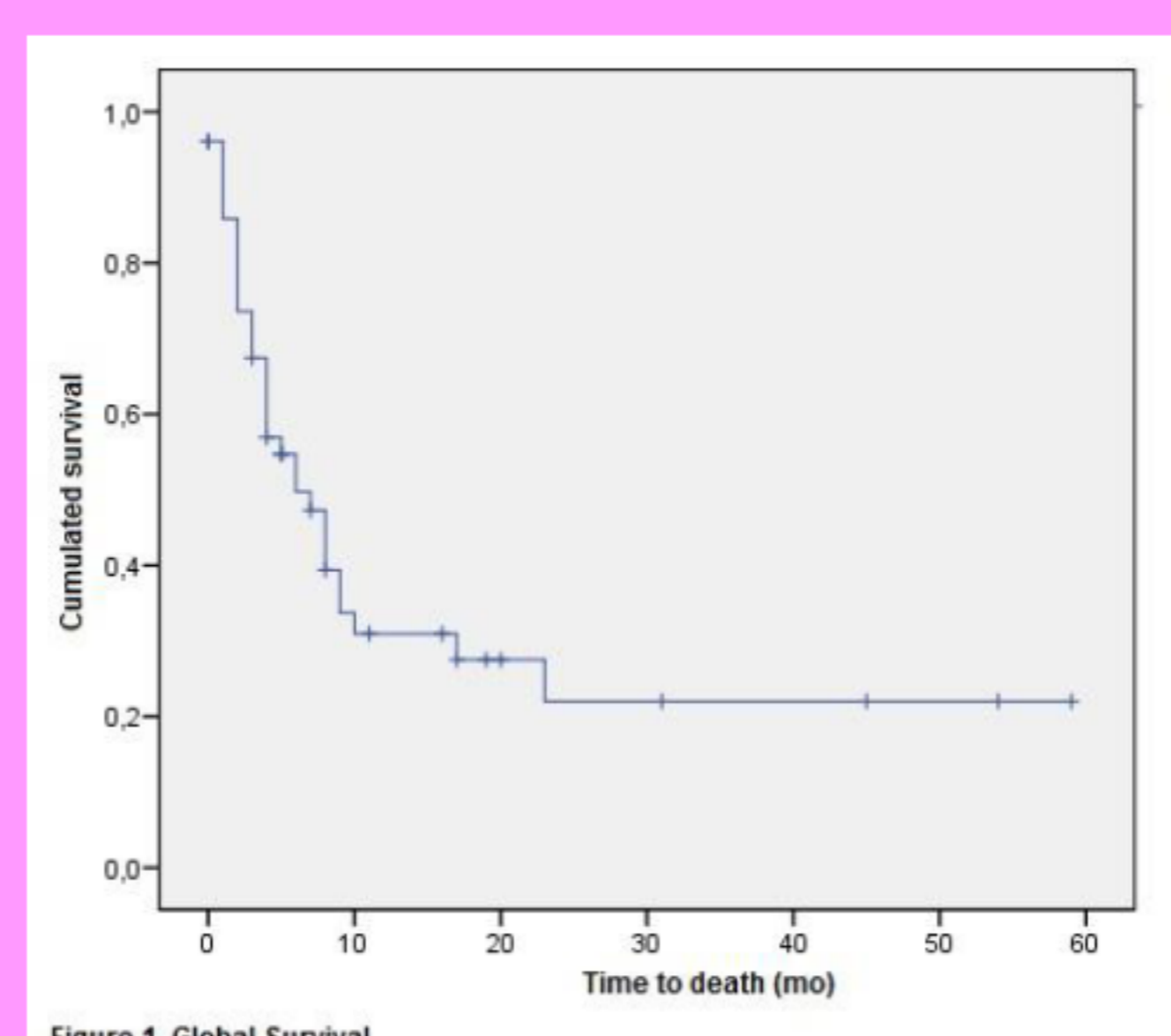
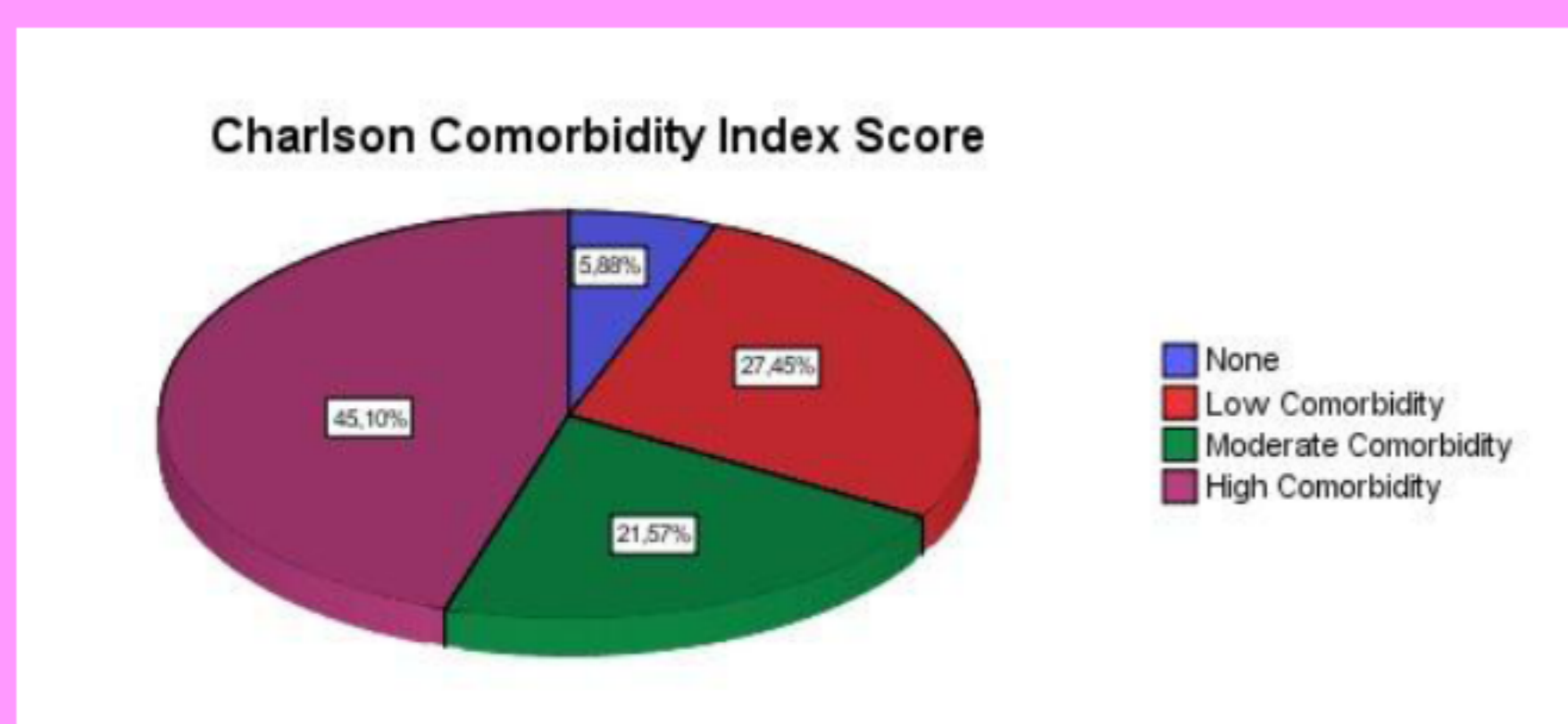
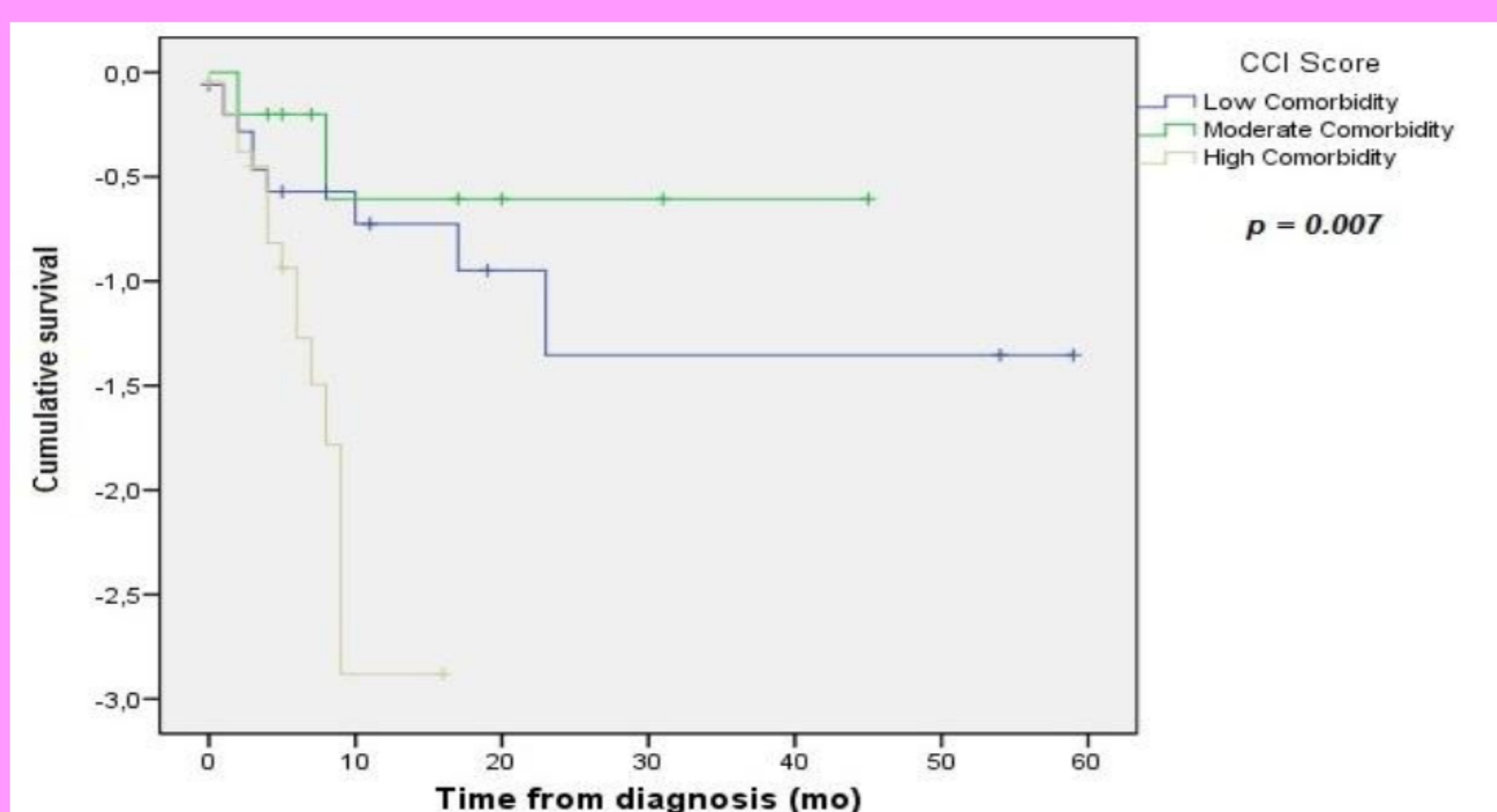
At the time of diagnosis the average mean age of the patients was 66 years (range 40 to 86) and there were 20 females and 31 males. A family history of cancer was reported in 8 patients (16%). 37% showed risk factors for the development to cholangiocarcinoma.

The average CCI score was 3 (range 0 to 3). Three patients (5.9%) had no comorbidities (CCI score of 0), 14 (27,5%) had a low comorbidity (CCI score of 1), 11 (21.6%) had a moderate comorbidity and 23 (45%) had a high comorbidity (CCI score  $\geq 3$ ). A history of previous malignancy was identified in 2 patients (3.9%) (prostate and ovarian cancer, respectively).

Jaundice (37%) and abdominal pain (33%) were the most common symptoms, with a combined presence was presented in 70%.

The overall survival time was 18.3 months.

The average survival rate in patient with a Score of 1 was longer than that of patients with a high CCI score (21.7 months versus 4.08 months,  $p=0.017$ ).



**Table 1.** Demographic, clinical and laboratory data of patients at baseline (mean  $\pm$  SD) n (%)

Variable	n=51
Age	66 $\pm$ 10
Sex (F/M)	20/31
Smoking	16 (31%)
Predisposing factor	19 (37%)
Family history of malignancy	8 (16%)
<b>Clinical manifestations</b>	
Jaundice	19 (37.3%)
Abdominal Pain	17 (33.3%)
Weight loss	7 (13.7%)
Casual diagnosis	8 (15.7%)
<b>Symptoms duration (months)</b>	1.31 (0-7)
AST (IU/l)	126 $\pm$ 120
GGT (IU/l)	614 (25-3211)
Albumin (g/dl)	3.6 $\pm$ 0.71
Bilirubin (mg/dl)	6.98 $\pm$ 6.66
Hemoglobin (g/dl)	12.9 $\pm$ 1.6
Platelets /mm <sup>3</sup>	253598 $\pm$ 92124
Creatinine (mg/dl)	0.8 $\pm$ 0.3
CA19-9 (U/ml)	17695 (1,2-274000)

Data available for 51 patients. ALT: Alanine aminotransferase. AST: Aspartate aminotransferase. GGT: Gamma glutamyltranspeptidase. CA 19-9: Carbohydrate antigen 19.9.

## Conclusions

- The presence and number of comorbidities conditions (assessed by the CCI) in patients diagnosed with cholangiocarcinoma proved to be an independent factors of unfavorable prognosis.
- Therefore, comorbidity evaluation instruments should be applied in the clinical management of such patients.

