**34757- Table (1) and Figures (3)**

**Table 1:** Age-adjusted HCC incidence and liver cancer mortality rates per 100,000 persons, 2006 – 2010. ( ref 5)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Non-Hispanic | | | | | | | | | | | |
|  | Age | All Races | | White | | Black | | API | | Hispanic | |
| Outcome | Years | Rate | 95% CI | Rate | 95% CI | Rate | 95% CI | Rate | 95% CI | Rate | 95% CI |
| HCC | Overall | 5.9 | (5.8,5.9) | 4.2 | (4.2,4.3) | 7.5 | (7.3,7.8) | 11.7 | (11.3,12.0) | 9.5 | (9.3,9.8) |
| Incidence | 35-49 | 2.2 | (2.1,2.3) | 1.4 | (1.3,1.5) | 2.5 | (2.2,2.8) | 4.7 | (4.3, 5.2) | 3.2 | (2.9,3.4) |
| SEER 18 | 50-64 | 16.5 | (16.2,16.8) | 12.2 | (11.9,12.6) | 26.9 | (25.8,28.1) | 23.5 | (22.4,24.7) | 24.3 | (23.3,25.3) |
|  | 65+ | 22.3 | (21.9,22.7) | 16.0 | (15.5,16.4) | 22.4 | (20.9,23.9) | 54.7 | (52.4,57.0) | 40.5 | (38.7,42.4) |
| Liver cancer | Overall | 4.3 | (4.3,4.3) | 3.6 | (3.5,3.6) | 6.4 | (6.3,6.6) | 8.2 | (7.9,8.4) | 7.0 | (6.9,7.2) |
| Mortality | 35-49 | 1.2 | (1.2,1.2) | 0.9 | (0.8, 0.9) | 2.0 | (1.9,2.2) | 2.8 | (2.6,3.1) | 1.4 | (1.3,1.5) |
| United States | 50-64 | 9.7 | (9.5,9.8) | 7.7 | (7.6,7.8) | 18.6 | (18.2, 19.1) | 13.0 | (12.4,13.6) | 13.5 | (13.0,13.9) |
|  | 65+ | 20.1 | (19.9,20.3) | 17.2 | (17.0,17.5) | 24.5 | (23.7,25.3) | 43.2 | (41.6,44.8) | 36.7 | (35.6,37.8) |
| API, Asians and Pacific Islanders; CI, Confidence Interval; HCC, Hepatocellular Carcinoma; SEER, Surveillance, Epidemiology and End Results | | | | | | | | | | | |

Figure 1 (ref 5)

Percent of Cases and 5-Year Survival by Stage at Diagnosis: Liver and Intrahepatic Bile Duct Cancer

Figure 2: BCLC (Barcelona Clinic Liver Cancer) Staging System (ref 36)

HCC

Stage 0 Stage A-C Stage D

PST 0, Child- PST 0-2, Child-Pugh A-B PST >2, Child-Pugh C

Very early Early stage (A) Intermediate Advanced

Stage (0) 1 HCC or 3 stage (B) stage (C) End stage (D)

1 HCC < 2cm nodules < 3cm Multinodular Portal invasion

PST 0 PST 0 N1, M1, PST 1-2

1 HCC 3 nodules ≤ 3 cm

Portal pressure/

Bilirubin

Increased Associated Diseases

Normal No Yes

Symptomatic

Treatment

Sorafenib

TACE

RFA

Transplantation

Resection

Curative Treatments

Palliative treatments

Figure 3: Development of HCC in NAFLD

Diabetes

Obesity

Metabolic Syndrome

Steatosis

Steatohepatitis

Cirrhosis

Genetic Predisposition

(PNPLA3 SNP)

?

Insulin Resistance

 Free Fatty Acids

 Reactive Oxygen Species

 TNF, IL-6

 Adiponectin

Leptin

Hepatocellular Carcinoma