Current Practices in Management of Hepatocellular Carcinoma in India: Results of an Online Survey

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Background: **Prior to INASL guidelines, there were no Indian guidelines for management of hepatocellular carcinoma (HCC) in India. The guidelines given by other societies like AASLD, EASL etc are not uniform and not tailored for Indian patients. Hence management practices for HCC in India largely depended on physicians' individual preferences. This survey aimed to study current practices in management of HCC in India.** ***Methods:*** **An online survey was conducted from the platform of a survey portal (www.surveymonkey.com), from December 2012 to April 2013. Invitation to participate in the survey was sent to 1383 doctors of India who were expected to be involved in management of patients of HCC. The survey was of 10 min duration and consisted of questions on how the respondents diagnosed and managed patients of HCC.** ***Results:*** **Three hundred and seventy-seven doctors answered the survey questions (72% gastroenterologists, 95% working in India). The important points which emerged from the survey are following: (i) The incidence of HCC is increasing in India; (ii) The most common etiologic agent is Hepatitis B responsible for 43% cases; (iii) Only 14% patients present in early stage when curative treatment is possible (BCLC-A); (iv) 90% of these respondents screen for HCC when they first evaluate a cirrhotic patient; (v) While following a patient of cirrhosis most respondents screen for HCC by ultrasound and AFP at every 6 months to 1 year; and (vi) Most (82%) respondents follow some international guideline for staging and treatment of HCC. The respondents also suggested that there is a need for spreading awareness about HCC in public as well as in medical fraternity, and there is a need for a national registry of HCC.** ***Conclusions:*** **This is the first survey on management practices on HCC. With the publication of the INASL guidelines on HCC, the diagnosis and treatment of HCC will be more uniform and protocol based. Further such surveys should be carried out at periodic interval to track increasing awareness and better management practices for HCC in India. (J Clin Exp Hepatol 2014;4:S140–S146)**

Management Practices Survey

Hepatocellular carcinoma (HCC) is one of the major causes of mortality among patients with chronic liver disease. The incidence of HCC is rising in India and is poised to become the leading GI cancer.[1] Prior to INASL guidelines,[2] published in the present issue, there were no Indian guidelines for management of hepatocellular carcinoma (HCC) in India. The guidelines given by other societies like AASLD, EASL etc are not uniform and not tailored for Indian patients. Hence management practices for HCC in India largely depended on physicians' individual preferences. This survey aimed to study current practices in management of HCC in India. This survey is the first of its kind done in India, and the results of this survey were presented and discussed during the round table discussion that was held on 9th and 10th February, 2013 at Puri, Odisha, to discuss, debate, and finalize the consensus statements.

METHODS

Survey Platform

An online survey was conducted from the platform of a survey portal (www.surveymonkey.com), from December 2012 to April 2013. The survey was of 10 min duration and consisted of questions related to the topics how the respondents diagnosed and managed patients of HCC. The

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Abbreviations: AASLD: American Association for the Study of Liver Diseases; AFP: alpha-fetoprotein; BCLC: Barcelona clinic liver cancer; CECT: contrast enhanced computerized tomography; CTP: Child Turcotte Pugh; EASL: European Association for the Study of the Liver; ESDO: European Society of Digestive Oncology; FNAC: fine needle aspiration cytology; GI: gastro-intestinal; HBV: hepatitis B virus; HCC: hepatocellular carcinoma; INASL: Indian National Association for the Study of Liver; MBBS: Bachelor of Medicine, Bachelor of Surgery; SOL: space occupying lesion; TACE: transcatheter arterial chemoembolization
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questions and their response options are given in Table 1. The survey consisted of 24 questions, mostly in objective response format, and each question appeared as separate screen on clicking 'next'.

Sample Size Calculation

There are approximately 2000 qualified gastroenterologists in India and almost all of them are life members of The Indian Society of Gastroenterology.[3] This comprised of the target population for the survey. For the survey to adequately represent the target population (n = 2000), with a confidence level of 95% and a confidence interval of 5, a sample of 322 responders are needed. Expecting a 25% response from invitees, invitation to participate in the survey was sent to 1383 doctors of India who were expected to be involved in management of patients of HCC.

RESULTS

Participants

Invitation to participate in the survey was sent to 1383 doctors of India. Of them, 377 (27%) responded to the questionnaire; in 11 (0.8%) the email bounced; 5 (0.4%) opted out: and 990 (72%) did not respond. Among the 377 who responded to the survey questionnaire, 313 (83%) answered all the 24 questions, while rest 64 (17%) answered some of the questions, but not all.

Most respondents (273/377, 72%) were gastroenterologists; followed by gastro-surgeons (47/377, 12%); and general physicians (18/377, 5%). Ninety-five percent (359/377) respondents were working as consultants or faculty. Eighty-five percent (322/377) respondents had completed their medical school (MBBS) between 1977 and 2003. Ninety-five percent respondents (360/377) were working in India.

The survey was designed in such a way that it proceeded further only if the respondent answered "Yes" to the question "In your practice do you come across patients of HCC?". Ninety-seven percent (367/377) respondents answered "yes" to this question.

Epidemiology of Hepatocellular Carcinoma

For the question "On an average, how many NEW patients of HCC do you see every month?" 40% of respondents answered as 0–1 patients per month; 30% respondents answered as 2–3 patients per month; and 20% respondents answered as 4–6 patients per month. Less than 10% respondents see 7 or more patients per month.

For the question "Is the number of new HCC patients increasing in your practice?" most (64%) respondents answered "Yes"; while 18% responded as "No" and another 18% were unable to comment.

Respondents were asked about the approximate etiological break-up percentage of HCC patients they see. The result is shown in Figure 1. According to the respondents the most common etiologic agent for HCC in India is Hepatitis B (43%), followed by Hepatitis C (22%), unknown or cryptogenic (17%), and alcohol (15%).

Apart from HCC, 78% of the respondents also come across intrahepatic cholangiocarcinoma in their practice, which resembles HCC.

Screening for Hepatocellular Carcinoma and Diagnosis

When asked how many of the respondents ROUTINELY screen for HCC when evaluating a patient of cirrhosis for the first time, more than 90% respondents answered that they do screen for HCC. The modalities of screening for HCC on their first evaluation of cirrhotic patients is shown in Figure 2. The most frequently used modality for screening for HCC is a combination of AFP and ultrasound abdomen.

While following a patient of cirrhosis 55% respondents screen for HCC once in every six months and 30% screen once a year (Figure 3).

When asked "What is the value of AFP in your opinion for screening for HCC?", 79% responded that they USUALLY order it recognizing its limitations because it is cheap and readily available.

Figure 4 shows the answers to the question "What will make you suspect HCC in a known patient of cirrhosis and will lead you to investigate for HCC?". Development of new portal vein thrombosis, worsening of ascites, worsening of CTP score, and pain abdomen were the most commonly encountered clinical pointers to HCC.

On detection of SOL in the liver in a cirrhotic patient, 90% of the respondents order triple phase CECT abdomen and AFP for diagnosis of HCC. Only 7% resort to FNAC for diagnosis of HCC.

Staging

Once HCC is diagnosed 76% (257/337) respondents will do staging and follow established guidelines for treatment as per the stage; while 16% (53/337) respondents will refer the patient to higher center for further management.

When asked, "Do you use the BCLC classification to treat HCC?" only 43% (143/336) respondents answered that they classify all their patients; while 30% (100/336) respondents classify some of their patients (Figure 5).

It was asked what is the approximate break-up of BCLC stages of new HCC cases they encounter. Three hundred and seventeen respondents answered and results are shown in Figure 6. About 40% of patients of HCC they see for the first time are already in the BCLC stage D when curative or palliative treatment is