

Summary

Hepatocellular carcinoma (HCC) is a major health problem, being the fifth most common cancer worldwide. The incidence of HCC is increasing in Europe and the US, and is currently the leading cause of death among cirrhotic patients.

The condition is not different in Egypt as it considered as a high incidence area for HCC. Ministry of Health and Population (MOHP) in Egypt reported that there is annual increase in incidence of HCC reaching the peak 8.30% by the year 2022, also mortality rate from HCC is more than double in 2 decades (1987-2004).

HCC has been classically considered a neoplasm with a dismal prognosis. However, with the introduction of surveillance programmes, the scientific community has experienced a switch in the type of tumours detected and the medical interventions potentially effective for them. Nowadays, the majority of HCC patients are diagnosed at early stages in which potentially curative therapies can be tested within clinical investigations. Therefore, there is a growing interest in understanding the advantages of these treatments from an evidence-based perspective.

Treatment procedures for early HCC lesions which provide survival rates better than their untreated counterparts (5-year survival rates of 40–70% vs. <20%) are considered

potentially curative modalities. This is the case of resection, liver transplantation and percutaneous ablation.

In this study, 102 HCC proven patients with HCV infection were enrolled in this series. This study was done in Tropical Medicine Department and HCC outpatient clinic, Ain Shams University Hospitals, El-Sahel Hospital, Dr/Refaat Kamel Hospital and Dar El-Fouad hospital in the interval between September 2006 and January 2009.

Nineteen patients underwent living donor liver transplantation, 28 patients underwent surgical resection, 36 patients underwent RFA and 19 patients underwent PEI. Eighty (78.4%) patients were male and 22 (21.6%) were females. Their age ranged between 47 and 70 years (mean 55.6 ± 4.30 years).

All patients were subjected to full history taking and thorough clinical examination, laboratory investigations including; complete blood picture, erythrocyte sedimentation rate, liver function tests, hepatitis markers, serum AFP level, abdominal ultrasonography, abdominal triphasic spiral computed tomography, ultrasound guided biopsy from the focal lesion whenever needed to complete the diagnosis.

After performing the selected procedure, patients were followed up for at least 12 months. Follow up was performed one month after the procedure then every 3 months regarding the liver and renal functions, AFP and imaging studies. EORTC quality of questionnaire was applied before and after each

treatment modality. Efficacy, overall and disease free survival and quality of life were assessed and compared between different lines of therapy.

In transplantation group, there was a statistical significant improvement of liver functions after the procedure. While, in resection group, there was a significant deterioration of liver functions postoperatively, but they returned to their baseline values few weeks later. For RFA and PEI groups there were no significant changes in liver functions post procedure when compared to pretreatment values, except for transient increase in ALT and AST levels after RFA.

As regard efficacy (primary response), both liver transplantation and surgical resection showed complete response in all patients 100%, while RFA showed complete response in 34 patients (94.4%) and PEI showed complete response in 16 patients (84.2%). This study revealed that there was no significant difference between all procedures as regard that point.

The 1 year survival rate was 73.7% for liver transplantation group; 82.1% for resection; 83.3% for RFA and 73.7% for PEI with no statistical significant difference between the four procedures.

The 1 year recurrence free survival rate was 88.2% for liver transplantation; 92.0% for resection; 69.4% for RFA and

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52.6% for PEI, with statistical significant difference between resection and PEI groups.

There was improvement of QoL scores after all procedures when compared to pretreatment scores, but it was significantly obvious in transplantation group concerning global health, all functional scales and most of symptom scales.

