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Local Ablation of Hepatocellular Carcinoma: Radiofrequency and Ethanol injection

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Abstract

Bachground: HCC is the fifth most common neoplasm in the world. If diagnosed at early stage, patients should be considered for any of the available options that may provide a high rate of complete response. These include surgical resection, liver transplantation and percutaneous techniques of tumor ablation.

Aim of the study: (i) Determining the efficacy and safety of each technique for treatment of HCC. (ii) Comparing the quality of life before and after each modality.

Patients and Methods: Fifty patients with proved HCC (between 2001–2004) were included and divided into: Group (i): included 30 patients with 36 lesions (22 males and 8 females with a mean age of 53 ± 5.96) were subjected to radiofrequency ablation (RFA); Group (ii) included 20 patients with 21 lesions (14 males and 6 females with a mean age of 56.4 ± 5.07) were subjected to percutaneous ethanol injection (

PEI). Written consent was obtained in both groups. Both groups were subjected to: (a) Clinical examinations; (b) Liver profile, alpha fetoprotein; (c) U/S and Spiral CT abdomen–1 month and then every 3 months after the procedures; (d) Quality of life assessment before and after the procedure according to SF36 questionnaire.

Results: Complete ablation in 32/36 (90%) lesions in G1 and in 21/ 26 (80.8%) in G2 with statistically significant difference between both groups and fewer sessions with RFA. One-year survival rate was 75% in G1 and 80% in G2. Side effects in both groups included abdominal pain, fever, (liver abscess in G1). No seedlings. Regarding quality of life assessment, there was a statistically significant improvement in both groups after both procedures.

Conclusions: RFA is superior to PEI in ablation of HCC but PEI can be preferable for lesions abutting the GIT, portal vein or the biliary radicles.