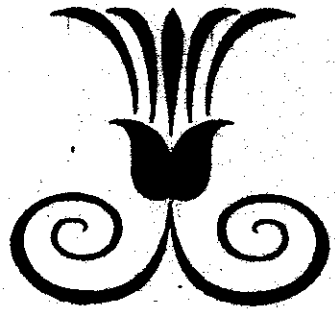

INTRODUCTION AND AIM OF THE WORK

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Color Doppler sonography is an important non invasive diagnostic tool for detecting abnormalities of the hepatic vasculature, **Ralls 1990**. Conventional spectral Doppler sonography yields valuable anatomic and functional information of the hepatic vasculature. Color Doppler imaging, by passively superimposing Doppler information on the gray-scale image act as a color flow map, **(Merritt, 1987),** facilitating detection of vessels that can be missed gray-scale or even conventional Doppler sonography, **(Grant et al., 1989).** In addition, color Doppler sonography shows flow direction and flow pattern in real time. This adds physiologic information without altering hemodynamics with the injection of contrast material **(Kubale et al., 1995)**. However color Doppler is operator dependent and also the access to some regions is limited by gastrointestinal gas, obscuring some vessels and collaterals.

The non-invasive techniques used to examin the hepatic vasculature (arterial, portal and subhepatic veins), are the color Doppler sonography, computed tomography and magnetic resonance imaging. In this work the color Doppler sonography was selected as a non invasive technique and its results were compared to the results of gastrointestinal angiography as an invasive technique, in certain hepatic pathology, in which the knowledge of the hepatic vasculature status (anatomy and pathological involvement) has a great significance in treatment progress. The speed, comfort and safety of gastrointestinal angiography all have improved and still the angiography produces the definitive answer in difficult diagnostic problem. But it is wrong

to persist in using arteriographic techniques in clinical situations where equal or better diagnostic information can be obtained by less invasive techniques e.g., sonography, color Doppler, computerized tomography, MRI, if they are available, (**Allison et al., 1997).**

The aim of this work is to evaluate the role of color Doppler sonography versus gastrointestinal angiography in hepatic vascular mapping.

Good identification of the hepatic vasculature (its normal anatomy, anatomical variants and there complications that occur with the different hepatic pathology) has a great influence in the decision making; what type of anastomosis that will done in operations e.g., in hepatic transplantation and surgical shunt; the possibility of interventional techniques if needed e.g., in transjagular intrahepatic portosystemic shunt (TIPS), and the efficacy of them.