Collateral pathways in portal hypertension

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Summary. In a retrospective study angiographic image material of percutaneous direct portographies carried out in 43 patients was evaluated according to anatomic and radiologic criteria. These examinations were performed for therapeutic purposes (embolisation of vessels supplying varices). All the hepatofugally perfused veins were analyzed according to their localisation and course. Apart from the known portocaval collateral pathways a number of other collaterals not yet described could be documented by means of angiography.

Les voies de dérivation veineuse dans l'hypertension portale

Résumé. A partir de l'analyse rétrospective de portographies directes effectuées par angiographie percutanée chez 43 patients, différents critères anatomiques et radiologiques ont été précisés. Ces portographies ont été faites dans un but thérapeutique (embolisation des vaisseaux alimentant des varices œsophagiennes); la localisation et le trajet de toutes les veines hépatofugues ont été étudiés. A côté de la circulation collatérale porto-cave connue, il existe un certain nombre d'autres voies de dérivation actuellement décrites et qui peuvent être précisées par angiographie.

Key words : Portal hypertension collateral pathways

Material and method

A percutaneous transhepatic portography using the DSA technique was carried out on 43 patients (aged X=49, 8; 20 to 78 years; male: female =28:15) with liver cirrhosis and recurrent esophageal variceal bleeding [2, 7]. The aim of the examination was a therapeutic embolisation of the vessels supplying the esophageal varices. After a sonographically controlled puncture of a branch of the portal v. a catheter was introduced into the splenic v. using the Seldinger technique. If the influx to esophageal or gastro-fundic varices became evident, then these were selectively catheterized, and the
Figs. 1-3
1 Percutaneous transhepatic portography in DSA technique in liver cirrhosis. Embolisation of veins supplying the esophageal varices a Before embolisation. Injection of contrast medium into the splenic v. near the splenic hilum. Hepatofugal perfusion of the left gastric v. (→) contrasting well-developed esophageal varices (→) b Before embolisation. Selective injection of contrast medium into the left gastric v. Demonstration of esophageal varices (→). Premature contrasting of the vena azygos (→) via infradiaphragmatic collaterals (→) c After embolisation. Total obstruction of the left gastric v. shortly after its origin (→) 2 Direct supply of the esophageal varices from the left branch of the portal v. (→) 3 Development of splenorenal anastomoses. a Survey angiography of portal v. Origin of a large v. (→) from the middle of the splenic v. Venous convolution in the adrenal region (→) b Selective demonstration. Drainage from the venous convolution via the left suprarenal v. (→) into the left renal v. (→) and into the inferior vena cava (IVC)