Fibrin-glue sealed liver biopsy in patients with a liver transplantation or in liver transplantation waiting list: preliminary results.

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Abstract:

Liver biopsy is frequently necessary for candidate evaluation or histologic follow-up of transplanted livers. Although generally considered to be safe, it carries a risk of complications in up to 0.5% of cases; hemorrhage being the most important. It can present as an asymptomatic intra- or perihepatic hematoma or result in overt hemorrhage of variable intensity. Patients with deranged hemostasis or on antiaggregant therapy are at high-risk for hemorrhagic complications. Percutaneous liver biopsy may be contraindicated if hemostasis is profoundly disordered. Safety values are not well defined: arbitrary limits are 60% prothrombin activity and 60,000 platelets per mm3. Patients with more altered values are candidates for alternative techniques, such as transjugular biopsy. Another option is the so-called plugged percutaneous liver biopsy, which uses direct injection of a plugging material into the biopsy tract. Different materials have been used: Tissucol, absorbable gelatin sponge, or hemostasis coils. We communicate our experience with Tissucol (fibrin glue) plugging in 30 percutaneous liver biopsies on 16 patients after liver transplantation with prothrombin activity <60%, platelet count <60,000 per mm3, or both. Only two complications were observed. Plugged liver biopsy is an efficient and relatively safe procedure in patients with impaired hemostasis; it can be performed even when transjugular biopsy is not available.