

PATIENT CARE GUIDELINES

Statement on Outpatient Percutaneous Liver Biopsy

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This document represents a consensus statement dealing with optimum patient care in a significant clinical area. The statement has been prepared by the Patient Care Committee of the American Gastroenterological Association with the advice of other experts and with peer review. As with all such guidelines, this should be interpreted in a nondogmatic manner, so as not to exclude other therapies or opinions in any particular situation. Based on present knowledge, limited at times, future modifications or other changes in this statement may be necessary.

KEY WORDS: liver biopsy; guidelines; outpatient.

Professional review organizations recently have demanded that procedures such as percutaneous liver biopsy be performed in an outpatient setting on those covered by Medicare. Physicians who perform these biopsies have requested that they be allowed to decide whether the biopsy on an individual patient can best be performed in an ambulatory setting, or whether the patient should be admitted to a hospital. This statement addresses this particular problem, in an effort to maintain quality of care.

The first major report of liver biopsy performed as an outpatient procedure was by Knauer in 1978 (1). He reported 107 outpatient liver biopsies with three complications, all bleeding episodes, occur-

ring within 1 hr of the biopsy. Earlier, Terry (2), in an inpatient setting, reported a mortality rate of 0.12% and a morbidity rate of 0.32%. Perrault et al (3), at the Mayo Clinic, have indicated a similar experience, a complication rate on the order of 3 per 1000. The complication rate reported by various European physicians is somewhat higher (4).

Hemorrhage has been the major cause of morbidity, with bile peritonitis occurring less frequently. These complications occur irrespective of the type of needle used or whether the biopsy is performed in an inpatient or outpatient setting. The procedure appears to be more accurate and perhaps more safe when performed in conjunction with ultrasound guidance and when it is performed with the use of a smaller caliber needle (5). However, a smaller tissue specimen with less architectural detail may be needed in this technique.

Liver biopsy is a relatively safe procedure, with a low complication rate and an extremely low mortality rate. Most complications and, in particular, hemorrhage and bile peritonitis, will be recognized within 4 hr after biopsy. Delayed bleeding has been reported as late as 15 days after biopsy (1, 6), and there has been a report of hypotension, vomiting, and death in patients who underwent biopsy 9 hr earlier (7).

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RECOMMENDATIONS

The following are suggested as desirable guidelines for outpatient liver biopsy:

1. It can be performed if the patient can easily return to the hospital where the procedure was performed within 30 min of any untoward symptoms.

2. It should only be done if the patient has a reliable individual to stay with him/her during the first postbiopsy night and to provide care and transportation to the hospital if necessary.

3. The patient should have no complications or associated serious medical problems that might increase the risk of the biopsy. These problems may include, but are not limited to: encephalopathy, ascites, hepatic failure with severe jaundice or evidence of significant extrahepatic obstruction, significant coagulopathies, or serious diseases involving other organ systems, such as severe congestive heart failure or advanced age. This might also include the frail elderly, the very young, or the extremely anxious patient who requires sedation.

4. The facility where the biopsy is to be performed should have an approved laboratory, blood banking unit, easy access to an inpatient bed, and personnel for the observation of the patient during the postbiopsy hours (usually six, as a minimum).

5. The patient should be hospitalized after biopsy if there is any evidence of bleeding, bile leak, pneumothorax, or other organ puncture. Hospitalization is suggested if the postbiopsy period is

accompanied by pain requiring more than one dose of analgesic in the first 4 hr after biopsy.

SUMMARY

Performance of liver biopsies utilizing an outpatient facility in which it is possible to follow the patient closely for at least 6 hr is acceptable for many patients. However, since exceptions occur, the decision must be individualized and be at the discretion of the physician performing the biopsy. An occasional patient may undergo a delayed complication and should, therefore, be able to return for hospitalization if symptoms such as weakness, syncope, or severe abdominal pain occur.

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