Reviewer's report

Title: Three-dimensional Drip Infusion CT Cholangiography in patients with suspected obstructive biliary disease: A retrospective analysis on adverse reaction to contrast material and feasibility.

Version: 1 Date: 7 December 2005

Reviewer: Jorge Soto

Reviewer's report:

General
Although the results of the study confirm that administration of iotroxate (Biliscopin) via a drip infusion is safe, the authors do not make a compelling argument about the clinical applicability of this method. This weakness can be addressed prior to publication.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Discussion. This section is weak. The authors fail to provide any clinical perspective highlighting why the results of their study are important.
-When do they recommend use of CT cholangiography? Mention, for example, applications in biliary anatomy delineation prior to liver transplant planning.
-Are there any specific indications and/or contraindications?
-What are the relative merits and disadvantages relative to MR cholangiography? For example, non-demonstration of the pancreatic duct is a known drawback or CT cholangiography. Of note, the 142 patients were imaged with this procedure over 7 years (20/year). This is obviously an infrequent examination with limited clinical application. Why?
-Is the fact that most of the patients included in their series were inpatients of any significance? Prolonged infusion times are problematic/impractical for outpatient settings.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Introduction, first paragraph, fifth sentence. The authors' statement that up to 80% of bile duct stones are isodense to bile and potentially not visible on CT is inaccurate and supported by a paper written in the 1960's, before CT was even developed. Recent papers that have evaluated the performance of CT without cholangiographic contrast material obtained better results:

Soto JA et al, AJR 2000;175:1127-34.

Please revise correspondingly.

Materials and Methods, Administration of contrast material. How much saline solution was used to dilute the contrast material?

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Discretionary Revisions (which the author can choose to ignore)

Materials and Methods, Evaluation of contrast material excretion. Why did the authors not measure
attenuation of bile in all patients with normal bilirubin levels?

Results. Why did the patient who experienced a reaction to contrast material injection undergo a repeat CT cholangiography examination?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests