Although it is clear from these 2 letters that the radiology community does not agree with the conclusions of our article, we would challenge radiologists to disprove our findings by publishing a study of their own. To the best of our knowledge this has not been done, and neither of the 2 letters offers any proof to the contrary.

The question remains: What is the downside to orthopedic surgeons interpreting their own total joint radiographs and asking for radiology consultation when they feel it is necessary? There isn't any!

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Cryosurgery for malignant hepatic tumours

Because of the presence of a temperature gradient of 10 °C/mm of liver tissue, adequate cryoablative treatment can only be delivered to lesions less than 5 cm in diameter.[1–3] It is therefore not surprising that 1 of the patients reported by McKinnon and colleagues in the December 1996 issue (pages 417 to 426) had a local recurrence shortly after cryosurgery.

Although the patient, who had a staged procedure whereby the third tumour was cryoablated during a second operation 6 weeks after the first, withstood 2 operations well, we suggest that intralesional ethanol injection of the third tumour should have been considered at the time of the first operation or subsequently. The use of intralesional ethanol injection, mostly in hepatocellular carcinoma, has been shown to be efficacious. Two recent studies[4,5] have shown that patients with lesions up to 5 cm in dimension, treated this way, have a 3-year surival rate of about 65%. At our institution, intralesional ethanol injection and cryosurgery form part of the armamentarium for palliating unresectable hepatic tumours. Further, the injection can be given percutaneously, does not require a laparotomy and has been shown to cost less than US$1000 per treatment.[5]

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Dr. McKinnon responds

Drs. Leow and Lau raise 2 important considerations regarding the treatment of malignant tumours of the liver. The first concerns the maximum size at which a hepatic tumour can be treated by cryosurgery. Although they are correct in asserting that a cryoprobe can only achieve a freeze zone or iceball of approximately 5 cm in dimension, modern multiprobe machines allow placement of several probes simultaneously, so that an iceball of very large size can be created if desired. Practically, however, the magnitude of injury to the liver, the metabolic consequences of leaving that much necrotic tissue in situ and the difficulty of accurate ultrasonographic monitoring make cryosurgery a daunting challenge for lesions larger than 5 cm in diameter. We currently restrict the use of cryosurgery to lesions 5 cm or smaller in dimension.

Percutaneous ethanol injection for the treatment of hepatic tumours is a promising technique, and the findings in early reports, as cited by Leow and Lau, are encouraging. Most of these trials, however, report the use of this technique in hepatocellular carcinoma, particularly in patients with cirrhosis. The hard sclerotic consistency of metastatic colonic carcinoma makes it more difficult for the alcohol to diffuse through the tumour. Our current practice is to use ethanol injection for small (less than 3 cm in diameter) hepatocellular carcinomas that are unresectable.

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