

Yoshio Shirai, M.D.
 Tetsuya Ohtani, M.D.
 Kazuhiro Tsukada, M.D.
 Katsuyoshi Hatakeyama, M.D.
 Department of Surgery
 Niigata University School of Medicine
 Niigata City, Japan

Author Reply

There appears to be some gap in appreciation by Shirai et al. of the point made in our article. We concluded that the type of surgical treatment significantly influenced survival and that resection was associated with better survival compared with biliary and or gastric bypass or laparotomy alone for patients with all stages of the carcinoma of the gallbladder, including those with advanced disease. This does not mean that curative resection should not to be performed whenever it is possible and feasible. The article analyzed multiple risk factors retrospectively in a patient population followed prospectively.

The concept of radical surgery for carcinoma of the gallbladder was in fact debated on page 1148 in the article, where difficulties in achieving no-tumor (RO) status in carcinoma of the gallbladder were highlighted. If RO status can be achieved, radical or supra-radical or extended radical procedures are justifiable.

The article addressed the problem of survival in patients for whom achieving RO status by surgery is not possible. The observation that resection (cytoreductive surgery) in such patients improved survival even in spite of advanced stage of disease is significant. In order to take care of the surgeon's personal-preference bias, cases of Stage IV disease were divided into categories IVA and IVB. While it may still be true that resection was selected for stronger patients with less invasive disease and palliative procedures were performed on sicker patients, differentiating between IVA and IVB resolved this situation to a large extent.

Based on these observations, our recommendation was to perform resection rather than do nothing in situations where curative resection is not possible. It was not offered as an alternative to curative resection when that is possible.

S. P. Kaushik, F.R.C.S., Ph.D.
 S. S. Sikora, M.S.
 Vinay Kapoor, M.S.
 Department of Surgical Gastroenterology
 Sanjay Gandhi Postgraduate Institute
 of Medical Sciences
 Lucknow, India

Thermography

Its Relation to Pathologic Characteristics, Vascularity, Proliferation Rate, and Survival of Patients with Invasive Ductal Carcinoma of the Breast

We were very surprised to see that Sterns et al.¹ had results that contradicted those presented by our group which demonstrated an association between three growth rate-related prognostic indicators for breast carcinoma and findings from infrared imaging.² Careful review of the Sterns et al. article¹ showed that they performed the infrared imaging with a different and outdated technology, did not quantitate actual growth rate with serial measurements from mammography, and looked at only one of the three growth rate-related parameters reported by our group² to be associated with abnormalities found in infrared images of the breast.

In reviewing the two articles by Sterns et al.^{1,3} on contact thermography, we noted that they reported that 56% of the breast carcinoma patients from the initial 214 patients who were screened with thermography had an abnormal breast thermogram, whereas only 19% had abnormal breast thermography when 420 women were enrolled in the study. This inconsistency is due to the fact that in the initial study the patients with equivocal thermal patterns were considered abnormal, whereas in the recent expanded study equivocal patients were considered normal. This clearly demonstrates that the authors are not sure what level of abnormality is really significant when attempting to relate infrared images to growth rate and growth rate-related parameters. In our study,² in which telethermography was used, 65% of the breast carcinoma patients had abnormal thermograms (including both the small number of patients with slightly abnormal thermograms and all the patients with definitely abnormal thermograms), and Isard et al.⁴ found that 54% of their patients had either PF2- or PF3-level abnormalities. In both of these studies, the presence of an abnormal breast thermogram had a significant impact on survival.

It is not appropriate to compare contact thermography results, produced by a technology that is over 20 years old and was not used in either our study or that of Isard et al.,^{2,4} with the results from infrared telethermography (a newer, more sensitive technology with much better image quality). It appears that the superior image quality of infrared telethermography may be necessary to demonstrate that abnormal infrared images of the breast (asymmetric hot spots, global