

# Global Cancer Conference & Medicare Summit

September 15-17, 2014 Hyderabad International Convention Centre, India

## Role of diagnostic laparoscopy and CA125 levels in detecting peritoneal metastasis in gastric carcinoma: A comparison with contrast enhanced computed tomography staging

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**Background:** Contrast enhanced computed tomography (CECT) is a reliable investigation to identify local infiltration and operability in gastric carcinoma. However, its accuracy in detecting peritoneal metastasis is contentious. This is because, peritoneal metastases have been found on explorative laparotomy in patients with a negative CECT result. In such patients, diagnostic laparoscopy and estimation of blood levels of CA125 antigen may be useful adjuncts to CECT in detecting peritoneal metastasis and avoiding morbidity associated with explorative laparotomy.

**Aim:** To compare the sensitivity of diagnostic laparoscopy and blood levels of CA 125 with CECT in detecting peritoneal metastasis in gastric carcinoma.

**Materials and Methods:** This was a prospective study. Thirty five patients with gastric carcinoma (proven by endoscopy and biopsy) but with no detectable peritoneal metastasis by CECT were included. All of them underwent diagnostic laparoscopy and analysis of peritoneal free fluid for malignant cells. In all these patients, serum of CA-125 antigen was estimated using chemiluminescence. CA-125 levels >35 IU/L were taken as suggestive of peritoneal metastasis.

**Results:** Diagnostic laparoscopy detected peritoneal metastasis in 10 patients (28%) with no detectable metastasis by CECT ( $p=0.0006$ ). Seven of these patients also had surface liver secondaries ( $p=0.0027$ ). 80% of the patients with peritoneal metastasis detected by diagnostic laparoscopy had elevated CA-125 levels ( $p=0.0534$ ).

**Conclusion:** Diagnostic laparoscopy is superior to CECT in detecting peritoneal metastasis. Blood levels of CA-125 antigen can help in selecting patients who are likely to have peritoneal metastasis by diagnostic laparoscopy.

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