

# New frontiers in peritoneal malignancies

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I was honored to be asked to write an editorial on ‘cytoreductive surgery using peritonectomy and visceral resections for peritoneal surface malignancy’ (1) written by Paul H. Sugarbaker. A strategic approach using peritonectomy and cytoreductive surgery to treat peritoneal cancers has gradually evolved over the past 30 years that has emanated by our impressive leader Paul H. Sugarbaker. He has brought many surgeons together from all over the world for these procedures. His skill made so many of us enthused by peritonectomy procedures and cytoreductive surgery with long operation time, a major postoperative morbidity and high mortality risk. However, we are all persisted with these procedures because of sometimes moribund patients with peritoneal cancers may cure with peritonectomy procedures and cytoreductive surgery.

Peritonectomy procedures (Sugarbaker Protocol) has been described in 1995 (2). Since then, management of mucinous appendiceal neoplasms including pseudomyxoma peritonei syndrome has shown marked changes. Result from multi institutional study suggests that long-term survival is greatly improved with peritonectomy and cytoreductive surgery in these patients (3). In selected cases with colorectal peritoneal carcinomatosis, peritonectomy and cytoreductive surgery combined with peroperative hyperthermic intraperitoneal chemotherapy improve median survival and produces approximately 30% cure (4-7). Second-look surgery in patients at high risk for locoregional failure in colorectal cancer also was described by Sugarbaker (8). Again, peritonectomy and cytoreductive surgery with peroperative hyperthermic intraperitoneal chemotherapy show approximately 50% long-term survival and marked improvement in peritoneal mesothelioma (9). Furthermore, treatment of liver metastases of colorectal carcinoma to reach a standard of care creates a strong rationale for

acceptance of peritonectomy procedures and cytoreductive surgery with peroperative hyperthermic intraperitoneal chemotherapy (10). The options for management of peritoneal surface malignancy have been expanded. Recent trends, peritonectomy and cytoreductive surgery with peroperative hyperthermic intraperitoneal chemotherapy are also promising approach as a new standard of care for gastric cancer (11,12).

The surgical techniques such as aqua dissection (13) and 5-aminolevulinic acid (5-ALA) detection (14) of peritoneal carcinomatosis have been extrapolated from these beginnings. My own combined interests in gastrointestinal malignancies and peritoneal malignancy have stimulated me to go and expand my surgical experience from indomitable surgeon Yutaka Yonemura who is a merciless member of Peritoneal Surface Oncology Group International from Japan.

Finally, peritoneal malignancy is a new frontier and will be treated appropriately using peritonectomy procedures and cytoreductive surgery with following Sugarbaker’s and his colleagues’ enormous efforts.

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