

# 10<sup>th</sup> Global Annual Oncologists Meeting

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### Isolated Thoracic Perfusion with Chemofiltration (ITP-F) breaks through drug resistance in progressive and pretreated malignant pleural mesothelioma

**Background:** Survival of patients with progressive malignant pleural mesothelioma has not improved during the last decades. Treatment options are limited because of poor chemosensitivity of this disease and mostly non-operability due to advanced disease. We report on a phase II study on isolated thoracic perfusion (ITP) with subsequent chemofiltration (ITP-F) as a locoregional therapeutic strategy with increased drug exposure.

**Material & Methods:** 28 patients with epitheloid mesothelioma were included in this study. 11 patients had prior surgical resection and all patients had prior Cisplatin and Pemetrexed based chemotherapy. Following multimodal therapy in all patients, progress was revealed in CT-scan. No patient had abdominal, cerebral or bone metastases. Under general anesthesia, a venous and arterial stopflow-balloon catheter was inserted via a femoral access and both blocked at the level of the diaphragm in vena cava and aorta. Chemotherapy consisting of 60 mg/m<sup>2</sup> Cisplatin and 15 mg/m<sup>2</sup> Mitoxantron was injected as pulsatile infusion against the aortic blood stream. After 15 minutes of ITP vascular blocks were released, followed by 45 minutes of chemofiltration. Endpoints of the study were overall survival and quality of life. According to the protocol a minimum of five cycles each were administered.

**Results:** Toxicity, due to chemofiltration was low with leucopenia and thrombocytopenia grade 1 in 11 patients and mucositis grade 2 in 6 patients. Surgical complications in terms of temporary lymph fistula in the groin occurred in 40 %. Gastrointestinal- or neurotoxicity was never observed. One year survival was 49%, 2 years survival was 31% and 3 years survival was 31%, 4 years survival was 23%. Median survival was 12 months.

**Conclusion:** ITP-F for pretreated patients with malignant pleural mesothelioma, progressive after multimodality therapy is a valuable treatment option with low side effects, offering a reasonable survival and maintaining quality of life.

### Biography

Karl R Aigner is Medical Director of the Department of Surgical Oncology in Medias Klinikum Burghausen (Bavaria)/Germany. He had his surgical training in cardiovascular surgery at Friedrich-Alexander University in Erlangen. At Justus-Liebig University Giessen, he specialized in Surgical Oncology, focusing on vascular techniques of drug delivery such as Implantofix and Jet Port catheters, and in 1981 first performed a technique of isolated perfusion of the liver with heart-lung machine in man. Further on, he developed various techniques of segmental vascular isolation of body segments and organs, and the stopflow technique with adequately designed catheters. In 1982, together with Prof. Stephens from Sydney, he initiated the biannual International Congress of Regional Cancer Treatment (ICRCT) and from 1987 to 1991, he was president of the International Society for Regional Cancer Therapy. From 1985 to 1998, he was Managing Editor of the *International Journal of Regional Cancer Treatment*. He is author of numerous publications and book chapters, lectured and performed teaching operations on vascular perfusion techniques and oncological surgery in Europe the United States and Asia.

### Notes:

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