## AB027. LA12. Surgery and Intrapleural therapy for stage IVa thymic tumors

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Abstract: Masaoka stage IVa thymomas represent spread to the pleura. Pleural metastases can be developed at first manifestation of the thymoma or as recurrent disease. The most common site of relapse of resected thymomas is the pleural space, and the paravertebral gutter and diaphragm were common sites. Treatment of options includes cytoreductive surgery such as local pleural resection, total pleurectomy, or pleuropneumonectomy, chemotherapy, intrapleural chemotherapy, and radiotherapy. In view of the fact that complete tumor eradication plays a major role in prevention of tumor recurrence and as most of the relapses in advanced stages of thymoma are locoregional, aggressive local treatment may improve survival. When pleural metastases are limited in number and distribution, resecting the macroscopic disease by local pleurectomy is relatively easy even by video-assisted thoracic surgery (VATS). Repeated pleurectomy has been possible and helpful after the initial pleural resection. When pleural metastases are



extensive and confluent, and associated with lung invasion, pleuropneumonectomy including resection of the ipsilateral pericardium and diaphragm as well requires for near complete resection. The results of pleuropneumonectomy are good despite the aggressive nature of the operation. The reported 5-year survival is approximately 75% even though perioperative morbidity and mortality are high. Although a true en bloc complete resection cannot be performed, the amount of diseases that is left is typically not visible and truly microscopic. In this situation, a local treatment after surgery might be necessary. One of them is intrapleural perfusion hyperthermic chemotherapy (IPHC). Hyperthermia is cytotoxic and can inhibit DNA repair. Moreover, it has a synergistic cytotoxic effect in enhancing drug uptake in local tissue for some drugs, such as cisplatin. IPHC makes the tumor expose directly to higher drug concentrations, meanwhile a lower incidence of side effects may be expected. IPHC may substantially improve local control compared with chemotherapy alone. The concept of IPHC has been significantly widespread in mesothelioma, ovarian cancer, and gastrointestinal cancer. The present lecture evaluates the results of an aggressive and locoregional multimodality approach consisting of debulking surgery and IPHC in the management of thymic malignancy with pleural spread.

**Keywords:** Stage IVa thymic tumor; cytoreductive surgery; intrapleural perfusion of hyperthermic chemotherapy

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