

## AB009. S009. Effect of endoscopic iodine 125 seeds brachytherapy on advanced pancreatic cancer: experience of single center

Bin Xiao, Guo-Sheng Chen, Yun-Peng Peng, Kui-Rong Jiang, Yi Miao

The First Affiliated Hospital of Nanjing Medical University, Nanjing 210029, China

**Background:** Pancreatic cancer (PC) is a highly lethal malignancy of digestive system, and nearly 80 percent of PC patients have lost the chance of surgery due to the lack of early diagnosis. For these patients, the only effective treatment (chemotherapy) is largely limited by drug resistance. Therefore, it is urgent to develop new therapy for PC. Endoscopic ultrasound (EUS) guided Iodine 125 ( $I^{125}$ ) seeds brachytherapy is a novel way of radiotherapy, and its role in the treatment of advanced malignant tumors is not fully explored. This study is to explore the efficacy of  $I^{125}$  brachytherapy on advanced pancreatic cancer.

**Methods:** Log-rank test was used to analyze the difference of overall survival between different groups from one pancreas center.

**Results:** The overall survival (OS) of PC patients treated with  $I^{125}$  (n=27) was significantly longer than patients received palliative treatment (n=46). Subgroup analytic results suggested that the OS of patients with  $I^{125}$  alone (n=15) was similar to patients with palliative treatment; however, patients with  $I^{125}$  followed by chemotherapy (n=12) markedly survived longer than patients with palliative treatment. To further assess the association between  $I^{125}$  brachytherapy and chemotherapy, we analyzed the OS difference between  $I^{125}$  followed by chemotherapy group and chemotherapy group (n=19). The data revealed that patients in  $I^{125}$  followed by chemotherapy group obtained long-term survival than patients in chemotherapy group. The  $I^{125}$  brachytherapy combined with chemotherapy group got more satisfactory result than chemotherapy group.

**Conclusions:** The EUS guided  $I^{125}$  seeds implantation followed by chemotherapy may be an important therapeutic approach to advanced pancreatic cancer. However, more related large-sample, multi-center randomized controlled trial (RCT) studies should be conducted for further evaluating the value of this therapy.

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