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Studies on mRNA Expression of The Somatostatin Receptor Family in Lung Cancer

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Objective: To investigate the characteristics of expression and distribution of 5 subtypes of somatostatin receptors (SSTR1-5) in lung cancer. **Methods:** With [α -³⁵S] dATP labeled oligonucleotide of the 5 SSTR subtypes as probe, using in situ hybridization, patterns of mRNA expression were detected of lung cancer tissues of 2 cases that fell in varied pathologic types. Additionally, Leica was employed to semi-quantitatively analyze density of the expression.

Results: Patterns of SSTR1~5 expression in lung cancer were as follows: SSTR2 expression was dominant in SCLC while in such NSCLC as adenous and squamous SSTR1 expression was stronger than that of the other 4 subtypes; In density of SSTR1~5 expression in lung cancer, NSCLC was higher than SCLC ($p < 0.01$). **Conclusion:** Even though patterns and density of expression of SSTR subtypes in lung cancer showed heterogeneity in pathohistologic types, as in SCLC, in NSCLC SSTR expression occurred as well. Therefore, it has positive prospects for somatostatin analog-oriented agents to be used in treatment of both of the lung cancers.

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Comparison of Radiation Adaptive Response in Peripheral Lymphocytes of Patients Undergoing Tc-99m MDP and Tc-99m DTPA Scintigraphies

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The radiation adaptive response (RAR) in peripheral lymphocytes (PL) of patients induced by Tc-99m MDP and Tc-99m DTPA scintigraphies were compared. Lymphocytes from 45 patients (25 males, 20 females, mean age 44 ± 18 years) were collected before and after scintigraphies using 740 MBq Tc-99m MDP or Tc-99m DTPA. Lymphocytes from 20 controls (12 males, 8 females, mean age 43 ± 7 years) were also collected. They were exposed to challenge dose of 2 Gy γ -rays using a Cs-137 cell irradiator. Number of ring-form (R) and dicentric (D) chromosomes was counted under the light microscope. From them a representative score, Ydr, was calculated as $Ydr = (D+R)/cells$. Adaptation index (AI) was defined as difference of Ydr between unconditioned and conditioned lymphocytes. RAR was induced in both groups of patients. Cycloheximide abolished the adaptive response in both groups. AI of Tc-99m MDP group was significantly higher than that of Tc-99m DTPA group. Therefore, Tc-99m MDP induced RAR was more prominent than those induced by Tc-99m DTPA.