

技术及应用

¹²⁵I 种籽源植入手术中工作人员的电离辐射防护

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摘要 为探讨操作¹²⁵I种籽源应采取适当防护措施必要性, 阐述了¹²⁵I种籽源植入手术各阶段的电离辐射监测结果, 并对无防护条件下手术医生可能受到的辐射剂量做出估算: 对于总活度为925 MBq的40粒种籽源, 在开源、核对及装源入植源器操作时, 操作距离30 cm, 操作时间10 min, 则操作者受照剂量为70 μSv; 对于手术医生, 从辐射防护角度进行估计, 一例手术, 包括插植和带源缝合操作, 医生在其操作位置的受照剂量可达184 μSv。并对¹²⁵I种籽源植入手术中工作人员的电离辐射防护提出了建议。

关键词 [¹²⁵I种籽源; 植入; 电离辐射; 防护](#)

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Ionizing Radiation Protection for Operator During ¹²⁵I Seeds Source Interstitial Implantation

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Abstract It is necessary to search for the proper ionizing radiation protecting method on operating ¹²⁵I seeds source interstitial implantation. The monitor results of ionizing radiation for ¹²⁵I seeds source interstitial implantation during the stages of operation are described. The radiation dose that doctor may suffered under non-protect condition is evaluated. The radiation exposure to operator is 70 μSv for the 40 pills seeds source of 925 MBq total activity during the whole procedure, such as opening the container, checking and installing the ¹²⁵I seeds source under the 30 cm operating distance and 10 min. It is estimated to operating doctor for one case that the radiation exposure is 184 μSv. Four suggestions of ionizing radiation protection for this kind of operation were made.

Key words [¹²⁵I seeds source _ interstitial implantation _ ionizing radiation _ protection](#)

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