A Survey on Radiation Exposure Protection of Health Care Providers during ERCP in Korea

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Background/Aims: All efforts during ERCP should be made to be aware of radiation hazards, and to reduce radiation exposure. However, there are few data regarding radiation protection practices or guideline during ERCP. This survey was planned to investigate the Korea status of radiation protective equipments and the awareness of radiation exposure of health care providers participating in ERCP.

Methods: A survey with a total of 42 questions was sent to each respondent via mail or e-mail between October, 2010 and March, 2011. The survey targeted nurses and radiation technicians who participate in ERCP in secondary or tertiary referral centers.

Results: A total of 78 providers from 38 hospitals answered the questions (response rate, 52%). The preparation and actual utilization rate were 55.3% (21/38 hospitals) and 61.9% (13/21), in lead shields; 100% (78/78) and 98.7% (77/78), in lead apron; 47.4% (37/78) and 37.8% (14/37), in lead glasses; 97.4% (76/78) and 94.7% (72/76), in thyroid shields; and 57.7% (45/78) and 68.9% (31/45), in radiation dosimeters. The common reason for not wearing protective equipment was that, according to 45.7% of respondents, the equipment is bothersome. Among the 78 providers, 39.7% (31/78) answered that they had attended lectures or read documents about recommendations for ERCP-related radiation protection of the Korean Pancreatobiliary Association. Following reading the recommendation, twenty eight (90.3%) of them answered that their awareness of the efforts to prevent and protect against radiation exposure was changed; sixteen (51.6%) were aware of the importance of protective equipment and had purchased additional equipments; twenty (64.5%) answered that they wore protective equipment all the time; and sixteen (51.6%) suggested the need for shift-work practices.

Conclusions: More protective equipment such as lead shields and lead glasses should be equipped. Also, health care providers always should wear all protective equipments.

Key Words: ERCP; Radiation exposure; Protective equipment