

THE PREVALENCE OF THYROID NODULES AMONG RADIOGRAPHERS

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Background and Aims

The thyroid gland is a potential target organ for radiation-related damage, as it receives a considerable radiation dose from scattered radiation. The survey was aimed to assess the prevalence of thyroid nodules among radiographers exposed to relatively low dose, constant or fractionated ionizing radiation.

Materials and method

A total of 103 volunteers' radiographers were participated in the survey. Each participant neck was scanned with a real-time thyroid ultrasonography using direct contact technique with 10 MHz linear array transducer. A blood sample was withdrawn from the participants for a serum thyroid function test. The test had been analyzed by Radioimmunoassay RIA procedures.

Results

Thyroid nodules were detected in 38 (36.9%) of the total number of participants. Multinodular goiter was detected in 50% of the participants showed thyroid nodules. The relation between age and the presence of nodular goitre is shown in the table bellow:

Thyroid Nodules detection	Age (Years)				Total
	≤25	26-35	36-45	45<	
	1 (2.6) %	7 (18.45) %	16 (42.1)%	14 (36.8) %	38

Conclusion

The survey concluded significant evidence suggesting that prolonged low-dose exposures to ionizing radiation may cause an increase in the risk of thyroid nodules. Age is an important risk factor in prevalence of thyroid nodules. Radiographers must perform safety aspect when using ionizing radiation in the diagnostic medical x-ray department.

