Association between prevalence of peripheral artery disease and radiation exposure in the atomic bomb survivors

The association of radiation exposure with the development of arteriosclerosis is not well understood yet. This study examined the relationship between radiation dose and peripheral artery disease*, which is an arteriosclerotic disease. Peripheral artery disease of the lower extremities was diagnosed when blood pressure ratio between ankles and upper arms measured 1.0 or lower (indicating a narrowing or blocking of the peripheral arteries of the lower extremities) or a prior history of revascularization.

Among the 3,476 participants studied from 2010 to 2014 by health examination, 79 (2.3% of the total) were identified as having prevalent peripheral artery disease of the lower extremities. However, no clear association with radiation exposure was found.

*Peripheral artery disease:
A condition in which the small arteries of the upper or lower extremities narrow or become blocked, causing worsened blood flow and a variety of symptoms.

RERF’s objective with this brief outline is to succinctly explain our research for the lay public. Much of the technical content of the original paper has been omitted. For further details about the study, please refer to the full paper published by the journal.