Short latencies shown for cancer in young workers with exposures to electro-magnetic fields

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A study conducted by Hebrew University researchers has found that that there can be very short latency periods between the time of exposure and development of cancer in workers in tasks with intense or prolonged exposure to electro-magnetic fields (EMFs). Previous studies have described excess risks for cancer from such high occupational exposures. However, none have addressed the issue of short latency periods from high exposure.

In the past two decades, 47 cancer patients - including 8 with multiple primaries - came to the Unit of Occupational and Environmental Medicine with histories of prior occupational exposure to various types and intensities of EMFs. In 15 cases, the latency periods between first exposure and diagnosis was less than 5 years, and 12 with latencies between 5 and 10 years.

High exposure to EMFs occurs with tasks involving fixing of radar equipment, sitting in vehicles with antennas and communication equipment, carrying radio equipment on waist or back all day, or working in offices located very close to powerful transmitting antenna, or 'situation rooms' that are packed full of communications equipment and radios. Periods of exposure to EMFs among the group of patients ranged from five months to 33 years. In almost all, exposures to EMFs were during military service.

Most of the patients were in their early twenties and had extremely short latent periods. In the

The report, which was recently published in the *European Journal of Oncology*, was written by Dr. Yael Stein, researcher Or Levy-Nativ and Prof. Elihu D. Richter of the Hebrew University's Braun School of Public Health and Community Medicine. Stein is preparing to do her Ph.D. on modeling of EMF exposure sources and penetration into the body.

Lloyd Morgan of the Environmental Health Trust, a U.S. scientific watchdog group, wrote, "The importance of this paper cannot be overstated. It suggests that a shift is required towards a new paradigm that non-ionizing radiation could be a universal carcinogen similar to ionizing radiation".

The study points to the need for better understanding of the carcinogenic potency of EMF and better protective measures against them.

"These young men and women are the nation's eyes and ears," wrote Prof. Richter in a letter to Israel's attorney general. "Our results state the case for protecting those who are protecting us. This means recognizing their risks now and taking action to protect them from high exposures to radiofrequency/microwaves."

Provided by Hebrew University of Jerusalem