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Arsenic exposure in population of Bihar and cancer incidences: A correlative study

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In the entire world, about 300 million populations are exposed to arsenic poisoning in groundwater. In Bihar, India about 50 million people is drinking arsenic contaminated water. Humans are exposed to elevated levels of inorganic arsenic mainly through the consumption of arsenic contaminated groundwater as drinking water, food prepared with this contaminated water and food crops irrigated with high-arsenic water resources. According to the provisional guideline value of WHO, arsenic in drinking water up to the level of 10 µg/l is decided as safe. This has caused various health-related problems in the population like skin diseases, anemia, bronchitis, gastrointestinal problems, hormonal imbalance, and cancer. According to a recent study, cancer risk is associated with daily consumption of 2 liters of water

with inorganic arsenic 50 µg/L has been estimated to be 1/100 denotes that elevated blood arsenic levels in the population can lead to cause various diseases including cancer to them. Skin and several types of internal cancers, including, bladder, kidney, liver, gall bladder, lung, uterus, and prostate have been found associated with arsenic ingestion. Our hospital-based study also correlates with the cause of cancer due to arsenic contamination. In our recent study, we have observed a significant correlation between arsenic toxicity and cancer incidences in the exposed population. Moreover, the numbers of incidences are very high in the Gangetic basin in comparison to the non-Gangetic zone. This study is one of the novel studies ever reported in the scientific world.

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