

Synopsis of nuclear medicine

Abstract:

The application of radionuclides to medical diagnosis and treatment has a relatively short history. The phenomenon of radioactivity was originally discovered by Henri Bacquerel in 1896, whereas Pierre and Marie Curie isolated the naturally occurring element radium in 1899. The use of radium in the treatment of malignant disease was first introduced at the turn of this century, and was established by 1920. It was not until 1938, however, that the discovery of nuclear fission made possible the subsequent development of the nuclear reactor, and the large-scale production of artificial radioactive nuclides. It was immediately realised that the latter opened up great possibilities in the medical field. The radioactive isotope was chemically indistinguishable from the stable isotopes of the element, and minute quantities of it in the body could be detected externally by virtue of the radiation they emitted; it could be used as a "tracer" to follow the metabolism of a substance throughout the body. The following synopsis is a brief attempt to introduce the Kenyan medical personnel into the scope of nuclear energy in medicine