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ABSTRACT (See instructions overleaf)

HORMONAL HOMEOSTASIS IN LIQUIDATORS OF CHERNOBYL ACCIDENT WHO HAVE DOSES OF IRRADIATION LESS THEN 1 GY Kovalenko A.N

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In liquidators of 1986 year basal levels of some hormones were investigated by radioimmunological method 2-6 years after they left 30 km zone around Chernobyl power plant. There was revealed an increase of hypophisis function that takes part in reactions of non-specific adaptation (corticotropine, somatotropine) but not others (follitropine, lutropine, prolactine, vasopressine). Spontaneous secretion of peripheral glands was increased in common (cortisol, insulin, C-peptide, angiotensine-II, estradiol). Glucohone, renine, aldosterone secretion was not change but testosterone was reduced.

The reaction of hormonal functions on radiation trauma has prolonged character because changes were observed during some years. A part of indexes returned to optimal levels or had a tendency to normalisation.

A concentration of cyclic nucleotides in plasma was essentially high and their dynamic shows an increase of total pules during years of observation.

According to conclusion that polyfactorial changes of hormonal status connected with consequences of radiation exposure are systemic and non-specific it may be characterised as postradiation endocrinopathy.