

• FARMACEUTICKÝ OBZOR 7/2004 • SUMMARY

• REVIEWS AND ARTICLES

P. HOLUB, S. RIGÓOVÁ, M. DORNÍKOVÁ, M. MONČEKOVÁ: CHANGES OF ELECTROLYTES AND MINERALS IN RABBIT PLASMA AT SHORT-TERM HEPARIN ADMINISTRATION /p. 177-184

The short-term therapy by higher doses of heparin causes the decrease of bone mass and osteoporosis, the mechanism of it is not sufficiently cleared up so far. The decrease of bone mass is connected with increased osteoclastic bone resorption and also with decreased osteoformation and possibly with the interference with the production of calcitrol as well as with the affection of mineral metabolism, mainly calcium.

The aim of the work was to find out whether short-term heparin administration influences electrolyte and mineral plasma composition, acid-basic balance and whether the possible changes depend on the dose. Heparin was two times daily administered to rabbits during four days in the dose 1000 and 2000 IU/kg s. c. In the course of the administration the parameters of acid-basic balance, hematocrit and plasmatic concentrations of Na^+ , K^+ , Cl^- , Ca^{2+} were measured by automatic analyser Stat Profile 4.

It was proved that heparin did not influence acid-basic balance. The significant decrease in hematocrit value after higher dose of heparin 2000 IU was observed from first to fourth day of medication. Both heparin doses caused significant increase of Na^+ and Cl^- in third and fourth day of medication. The significant increase in plasma (2nd, 3rd, and 4th day) was observed only after lower heparin dose. The increase in Ca^{2+} after higher dose of heparin was not proved, probably as a result of interference with determination.

Our results confirm that higher heparin doses 24 hours after administration significantly influenced electrolyte and mineral plasma composition due to the interference with calcium phosphate metabolism. This can cause osteoporotic changes after long-term administration.

Key words: heparin – osteoporosis – natremia – chloremia – ionised calcium – arterial pH calcium metabolism

L. HEGYI: OLD PEOPLE AS USERS OF DRUGS /p. 185- 190

Senior clientele constitutes majority of the patients in the ambulance of general practitioner as well as in the pharmacy. The treatment and particularly the pharmacotherapy constitute in old

age a health-social problem resulting from the characteristics of elderly patient. The pharmacotherapy in old age is characterized by poly-pragmatism, by the prevalence of symptomatic over causal treatment, by high occurrence of unwanted effects of drugs and by the speciality of pharmacokinetics and pharmacodynamics. The multi-morbidity and the prevalence of symptomatic over causal treatment resulting in high incidence of undesired drug effects characterized by atypical clinical manifestations are considered to be the reasons of poly-pragmatism. The important part of the treatment is the patient compliance. Non-compliance is very important and frequent due to the social reasons. So-called social non-compliance of old people in Slovakia raised in the past years as a reason of increased living costs, the part of them are the expenses on health. Despite of complication of geriatric pharmacotherapy as well as its financial costs it is necessary to mind that ethic norms of our profession enjoin us to seek, to find out and to give to the sick senior all help and support that provide present situation of the science and the society.

Key words: pharmacotherapy – compliance

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