Gomal Univ. J. Res Vol. 19: pp 209-211, 2002 ISSN 1019-8180

ATHLETIC PSEUDOANAEMIA AND TRAINING INDUCED HYPERVOLEMIA, ERYTHROCYTES TURN OVER AND HAEMOGLOBIN CONCENTRATION IN LONG DISTANCE ENDURANCE AEROBIC EXERCISE ATHLETIS.

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ABSTRACT

This study was to review the data in long distance runners with respect to effects of endurance trairning on pcv, Hb concentration, erythrocyte, turn over in male endurance athlete, (E) and control ©, which showed lower pool of RBC, hemoglobin concentration (Hb) packed cell volume (PCV) lower with respect to control. Endurance athletes have high MCV, lower MCHC, PCV, low erythrocytes (Er) Low Hb, high reticulocytes (Ret) and high reticulacytes count (Ret), lower MCHC, high RET is due to decreased iron availability in E group for red blood cells fromation (ER). 39 male healthy endurance athletes (E) and N= 48 of control © were selected.

DISCUSSION

Endurance Athletes tend to have low haemitocrit and Hb and to be slightly anaemic as compared to normal population called sports anaemia which is a psuedo (false) anaemia and is due to expension of plasma volume 12-20% and "thining of Blood" diluting RBCs lowering Hb concentation, PCV, erythrocytes (Er) due to regular aerobic endurance exercise in logn distance ranners. The anaemia in endurance athletes is dilutional anaemia and the expended plasma volume is an adoptation to Acute loss of plasma volume and haemo concentration due to hard endurance exercises. The reduced plasma volume is due to raised mean arterial presure and capillary hydrostatic presure, production of lactic acid and other metabolites in working muscles that ncrease (1) Tissues, osmotic presure (2). Increase sweating, (3) kidney secrete renin,