63 AGE-RELATED CHANGES IN SELECTED MORPHOLOGICAL, PHYSIOLOGICAL AND BIOCHEMICAL VARIABLES OF INDIAN FIELD HOCKEY PLAYERS

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The aim of the present study was to find out the age-related changes in selected morphological, physiological and biochemical variables of Indian field hockey players. One hundred and twenty (N = 120) field hockey players volunteered for this study. The players were divided equally into four groups (n=30): under 16 years (U16); under 19 years (U19); under 23 years (U23) and seniors (SR). Height, body mass, body fat, lean body mass (LBM), VO_2max, anaerobic power, strength, haemoglobin (Hb), serum urea, uric acid, total cholesterol (TC), triglyceride (TG), high-density lipoprotein cholesterol (HDL-C) and low-density lipoprotein cholesterol (LDL-C) were measured in the laboratory. Analysis of variance with repeated measures followed by multiple comparison tests was performed to find out the significant difference in selected morphological, physiological and biochemical parameters among the selected age groups. Results showed significantly higher ($p<0.05$) body mass, height, LBM, anaerobic power, strength, Hb, serum urea, uric acid, TC, TG, HDL-C and LDL-C in the U23 and senior players compared with those in U16 and U19 players. However, significantly ($p<0.05$) lower body fat was noted in U16 and U19 players as compared with those in U23 and senior age group players. It was observed that VO_2max elevated significantly ($p<0.05$) in U19 age group players, then declined ($p<0.05$) further in the senior age group players. The present study can be a handy tool and can act as a frame of reference for selection of field hockey players of different age groups.