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# Exercise Leukocytosis of the long-distance swimmers 

By Haruo Hashimoto*

Exercise leukocytosis of the long-distance swimmers was studied. All swimmers were Varsity team members of the Keio University swimming club.

Five students swam for 7 hours, three students swam for 9 hours in the pool on June 29, 1980.

Five students swam for 12 hours in the channel from Enoshima to Atami for about 43 km on July 29, 1980.

Peripheral blood was obtained in 10 minutes after long-distance swimming events. Control blood was obtained in fasting state. Cell counts was performed with Coulter Cell Counter (Coulter Electronics, Inc., Hialeah, Florida, U.S.A.). Leukocytes morphology was studied with the slide glass film methods and Wright's-Giemsa stain.

Hematological examination revealed that long-distance swimming resulted in (1) marked leukocytosis and neutrophil granulocytosis (3.6x, 4.35x, and 5.68 x of the control blood in 7 hours, 9 hours and 12 hours swimming respectively), (2) basophil and eosinophil granulocytopenia, (3) slight lymphocytopenia.

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