

Brief Report

# Assessment of vitamin B<sub>1</sub>・C nutritional status in female collegiate athletes

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## ABSTRACT

### **【Aim】**

The purpose of this study was to clarify a relationship among dietary surveys, blood parameters including vitamin B<sub>1</sub>, C levels, and indefinite complaints, as a nutritional assessment for understanding vitamin nutritional status in athletes.

### **【Methods】**

Seven female collegiate basketball players (group A) and 14 female college students (group NA) participated in this study. A survey was conducted on nutritional status over 3 days, blood tests (including vitamin B<sub>1</sub>, C levels) were performed, and a questionnaire was conducted on lifestyle, indefinite complaints, and eating habits. The relationships among these items were examined, featuring parameters associated with vitamin B<sub>1</sub> and C.

### **【Results】**

There was a significant positive correlation between vitamin B<sub>1</sub> intake (mg/1,000 kcal/day) and blood levels in group A, but not in group NA. There was no significant correlation between blood vitamin C levels and vitamin C intake in either group. No relationship between the number of indefinite complaints and dietary survey results, and blood levels was found in either group, however, some indefinite complaints that were more frequent in group A than in group NA were considered to be related to energy intake and blood levels.

### **【Conclusion】**

The results of this study suggest that evaluation of vitamin B<sub>1</sub> nutritional status in athletes needs to assess not only dietary intake but also blood levels or indefinite complaints peculiar to athletes. Further investigation about vitamin C assessment methods needs to be performed.

**Keywords:** sports nutrition assessment, vitamin nutrition, vitamin B<sub>1</sub>