

Effect of NKCP, a powder produced from dried culture filtrate of partially distilled *Bacillus subtilis*, on fluidity of blood

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Abstract

Natto, made from fermented soybeans, is a traditional Japanese food. Many people enjoy it for its distinctive flavor, enlivened by the activity of *Bacillus subtilis*. Natto has a long history, and some have theorized that it may even have a prehistoric origin, possibly circa B. C. It has at least been ascertained that natto has been popular since the Edo period, 400 years ago. Originally, natto was utilized as a folk remedy for heart and vascular diseases, fatigue, and beriberi. In 1980, Dr. Hiroyuki Sumi et al. found that natto contains a potent fibrinolytic enzyme, which they named nattokinase. NKCP, a dietary food supplement containing nattokinase, is a powder produced from the dried culture filtrate of partially distilled *B. subtilis*.

In order to confirm the effect on the fibrinolytic activity by the oral administration of NKCP, 8 healthy participants between the ages of 20 and 60 took 500mg NKCP orally in enteric capsules, daily for 7 days. As a result, the euglobulin lysis time (ELT) was shorter from Day 4 and was shortened in all participants on Day 7. In addition, the same tendency was observed in the administration of 250mg per day. Secondly, in order to confirm the effect on the fluidity of whole blood by the oral administration of NKCP, 39-year-old healthy male took 1g NKCP orally in enteric capsules, after every meal for 14 days. As a result, the passage time for 100μl of heparinized whole blood through capillary was 46.7 seconds after Day 7 while the average time before the administration was 54.8 seconds. The results above imply that the oral administration of NKCP improves fibrinolytic activity and also controls thrombus formation.

References

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