# The History and Nutritional Excellence of Samgyetang

Yu-jin Kim, Dai-ja Jang Korea Food Research Institute, Korea

#### 1. Introduction

Samgyetang is a boiled hard food with chicken, ginseng, glutinous rice, jujube, garlic and so on. Over time, there has been a dif-ference in the ingredients, but it is the same that Samgyetang has been loved by the public for a long time. The reason is that not only the good tasty and relatively inexpensive price, but also the nutritional excellence. Therefore, understanding the efficacy of materials in Samgyetang through the old literature such as oriental medical book is an opportunity to know more about Samgyetang, a traditional food of Korea.

### 2. History

Samgyetang was first started in 'Yeongebacksuk', meaning that the young chicken(yeonge) that had been hatching for 60~70 days was not seasoned but boiled hard with glutinous rice etc. Since then, ginseng has been added in the Yeongebacksuk, and it has been turned into 'Gyesamtang'. But until that time, the ginseng powder was usually used than the ginseng. In the 1960s, due to the beginning of the cultivation of ginseng in Korea, ginseng could have been got easily. For this reason, many restaurants that put ginseng in the Samgyetang have been increased, the term 'Gyesamtang' was changed to Samgyetang.

#### 3. Nutritional characteristics

Although the ingredients of Samgyetang are slightly different according to the recipe, we studied the nutritional characteristics of glutinous rice, jujube, and garlic, which are mainly used with chicken and ginseng as main ingredients.

#### - Chicken

『Bonchogangmok(本草綱目)』 written by Lee si 『Donguibogam(東醫寶鑑)』 written by Heo jin and jun, chicken is said to have a warm temperament, to increase the body temperature, to warm the stomach and spleen, to strengthen the digestive power, to strengthen the bone marrow and to strengthen the energy [1]. In addition, chicken has low fat content compared to beef and pork, while high unsaturated fatty acid content is good for preventing adult diseases such as alliance hardening and heart disease, and it contains a lot of essential amino acid, which is a good protein [2]. Therefore, not only the growing children, but also the elderly and the patient who need to supplement the summer weariness are helpful for all ages. Samgyetang mainly uses 600 ~ 800g of young chicken, the reason is that young chickens can boil for a long time to maintain soft meat texture [3].

### - Ginseng

The scientific name of ginseng is Panax ginseng C.A. Meyer means healing all diseases. Reflecting this, it is said that ginseng was the fifth most frequently used medicinal herb among the 293 drugs in 『Bangyakhappyun(方藥合編)』, which is representative medicine book of the late Joseon Dynasty. Ginseng strengthens the body's immune function, replenishes the blood and stabilizes the nervous system. This is due to the ginsenosides and acidic polysaccharides, which are a type of ginseng saponin [4]. This ginsenoside component is distributed throughout the ginseng but especially at the roots, and when it is more than 4 years, the content is also in-creased. For this reason, Samgyetang is mainly used for ginseng of 3 ~ 4 years old [5].

# - Glutinous rice

Unlike rice, glutinous rice has a high proportion of amylopectin, so it is gently digested and absorbed

without burdening it. It has a warm property and does not irritate the gastric wall, which is beneficial to people with gastric diseases such as chronic gastritis and gastric ulcer [6]. Nutritionally, glutinous rice is rich in vitamins B1, B2, D, and E to help prevent bone health, prevent aging, and prevent heart disease. On the other hand, it has the disadvantages of low fat, calcium, iron and fiber content. But jujube, another ingredient in Samgyetang can complement these shortcomings.

#### - Jujube

Jujube contains dietary fiber, various minerals such as calcium, iron, phosphorus, and vitamin A, C, etc., and it plays a role to fill the deficient part of glutinous rice and is well known as a food compatible with glutinous rice. These nutrients not only help prevent constipation by promoting intestinal motility, but also help prevent aging, protect eyesight, and improve skin problems [7]. In 『Donguibogam(東醫寶鑑)』, it was written that jujube has the effect of protecting the organs, diuretics, blood replenishment, etc. [8]. In addition, Jujube is used not only for edible but also for oriental medicine.

#### - Garlic

According to the 『Bonchogangmok(本草綱目)』, garlic has the effect of digesting meat and eliminating the bad smell of food, so it is useful for cooking food and it has the effect of cooling the heat in summer [9]. The components of garlic, such as allysine and scorpine, are antibacterial chemicals that excel in microbial sterilization and anti-bacterial effects. Also the components combine with vitamin B1 to produce fatigue recovery, physical strength, and energizing effects [10, 11]. In US, the researchers of Institute of Food Technologists(IFT) found that chicken and garlic cooked together increased the amount of moisture and protein in the chicken, while reducing fat.

In summary, Samgyetang is a nutritionally excellent food that combines chicken, ginseng, and glutinous rice, jujube, and garlic etc., which help digestion and help prevent diseases, complementing physical strength and stimulating metabolism. Therefore, we need to research and globalize Samgyetang in the future.

## ■ References

[1] Korea Chicken Council , KISTI , Efficacy of chicken. Monthly Korean Chicken. 2005;56(50):46-49

- [2] Seo Ok-seok. .Globalization of Samgyetang. Korea Chicken Council. Monthly Korean Chicken. 2011;8:54-59
- [3] Korea Chicken Council, KISTI. Q&A corner? Ask Anything! - Reasons to eat Samgyetang. Monthly Korean Chicken. 210;42(7):146-147
- [4] Han Bok-ryo. Jinseng food in Korean food culture. Journal of east asian society dietary life. 2010:3-21
- [5] Noh Hyun-sook. [Eating as well as you know] If you have a lot of body heat, keep the ginseng away. Monthly Samtoh. 2013; 4: 86-87
- [6] Park So-hee. Glutinous rice with good digestion function. Korea Institute of Science and Technology Information (KISTI). Bakery (Korean Confectionery Association). 2006; 5 (0): 135-139
- [7] Shin Jae-yong. Food Donguibogam. Book plus. 2012: 260-281
- [8] Shin Min-ja, Jun Jung-il, Choi Young-jin. Literature review on the Fruits in Dongeubogam. Journal of east asian society dietary life. 2000;10(4):261-273
- [9] An mun-saeng. A Study on the Pharmaceutical Ingredients of Pepper and Garlic. Journal of east asian society dietary life. 2002;10:454-460
- [10] Park Kun-young. Nutritional Evaluation and Anticancer Effect of Kimchi. Busan National University Kimchi Research Institute. Research Bulletin of Kimchi Science and Technology. 1999;5(0): 123-126
- [11] Sung Ki-chun. Pharmacetical Characteristics and Analysis of Garlic Extract. Journal of the Korean Oil Chemists' Society. 2007:24(3):301-308