More Meat, More COVID-19 Cases? Comparative Study between USA and China in Importing Mutton

Maslichah Mafruchati

INTRODUCTION
Meat can be processed into a variety of delicious and appetizing dishes. Meat becomes the main product in dairy consumption toward society. Meat is often used as a source of protein for people who have hard work and children in growing period. Besides, the iron content in meat can provide health benefits for people who have anemia, because it can help to produce more red blood cells. However, too much in consuming meat can be bad for health (Quintana Pacheco et al., 2018). Meat from sheep, or called as mutton, has more saturated fat than others which is hard to be digested by the body (Ivanović et al., 2016). This saturated fat contains a lot of LDL or low-density lipoprotein that will accumulate on the walls of blood vessels and block the blood circulation. Stroke is one of the diseases which are caused by blockage of blood vessel around the brains. If the LDL is accumulated in the artery, it will cause a heart attack. People who have the habit of consuming saturated fat will be at risk of developing hypertension by 7.72 times than people who do not normally consume saturated fat (Siri-Tarino et al., 2010). People with hypertension are more vulnerable to get infected by COVID-19 than those who do not (Singh et al., 2020). The American Heart Association (AHA) records that people with high blood pressure may have a greater risk of complications if they are infected with the COVID-19 virus. Hypertension is an asymptomatic or silent killer that could damage important organs including the brain, heart, kidneys, large to small blood vessels. As a result, it reduces the immunity system for the body significantly as the functions of one or several organs are disrupted (Vicenzi et al., 2020).

United States of America (USA) becomes the country with the highest number of COVID cases in the world. One of the reasons it is due to the high number of population in the country, along with the late implementation of stoppage in allowing people from overseas in entering the country. Another reason because of the high number of hypertension in the USA. Among 5700 patients of COVID in the USA have more than 50% of hypertension rate, similar to the hypertension reported rate in China, the country with the first-rate of COVID cases (Geldsetzer, 2020). Luckily, the world is entering the 4th industrial revolution now, where any information in each country is connected through the internet (Wardhana, 2020). Big data is used to store and share information across the globe to solve the problem faster and more efficiently. As the COVID-19 become global pandemic, researchers and health experts around the world can do collaborative action easily to study the characteristic of the virus, the symptoms of the suspect, as well as the best medication to be conducted (Wang et al., 2020). Based on the background above, this study has a purpose to observe if there is a correlation between meat consumption and the number of COVID cases in the USA and China.

MATERIAL AND METHOD
This study is a quantitative research using secondary data as the source. The subjects of this study are the USA as the country with the biggest COVID case number, and China as the first country which experienced the pandemic. The samples are divided into two groups, report of mutton consumption, and report of positive coronavirus cases. The data are pre-taken from the first month of COVID-19, fat, mutton.

Keywords: Active case, COVID-19, fat, mutton.

 Correspondence: Maslichah Mafruchati
Department of Veterinary Anatomy, Faculty of Veterinary Medicine, Universitas Airlangga, Mulyorejo, C Campus, Surabaya, (60115), Indonesia
Email: maslichah-m@fh.unair.ac.id

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Department of Veterinary Anatomy, Faculty of Veterinary Medicine, Universitas Airlangga, Mulyorejo, C Campus, Surabaya, (60115), Indonesia
Email: maslichah-m@fh.unair.ac.id

ABSTRACT
Mutton is known as a source of fat. Too much fat can cause high blood pressure and hypertension which is more vulnerable to get infected by COVID-19. This study has a purpose to observe if there is a correlation between meat consumption and the number of COVID cases in the USA and China. This study is a quantitative type method with secondary data as a sample. The samples are divided into two groups, report of mutton consumption, and report of positive coronavirus cases. The result shows that the total import number of mutton does not have any negative impact on COVID cases. Rather, the total number of imports itself could reduce the number of active case. It can be concluded that the higher the total number of mutton imports, the lower of active case of COVID-19.

Keywords: Active case, COVID-19, fat, mutton.

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Department of Veterinary Anatomy, Faculty of Veterinary Medicine, Universitas Airlangga, Mulyorejo, C Campus, Surabaya, (60115), Indonesia
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RESULT AND DISCUSSION

**Table 1. Total China mutton import**

<table>
<thead>
<tr>
<th>Month</th>
<th>Total of mutton import [Tonnes]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov/19</td>
<td>500-520</td>
</tr>
<tr>
<td>Dec/19</td>
<td>520-550</td>
</tr>
<tr>
<td>Jan/20</td>
<td>500-540</td>
</tr>
<tr>
<td>Feb/20</td>
<td>470-500</td>
</tr>
<tr>
<td>Mar/20</td>
<td>730-750</td>
</tr>
<tr>
<td>Apr/20</td>
<td>680-700</td>
</tr>
<tr>
<td>May/20</td>
<td>630-650</td>
</tr>
<tr>
<td>June/20</td>
<td>700-730</td>
</tr>
</tbody>
</table>

Source: https://www.mla.com.au/

The table above shows that March is the month where China imported mutton most, while January is the least. The first case of COVID-19 in China started in November 2019, but started to get serious in January, as the COVID-19 started to spread globally. It can be inferred from the table above that China is quite high in importing mutton meat which is recognized as meat with high fat.

**Table 2. Number of active cases of Covid-19 in China**

<table>
<thead>
<tr>
<th>Day/Month/Year</th>
<th>Total active cases of COVID - 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Jan 2020</td>
<td>554</td>
</tr>
<tr>
<td>22 Feb 2020</td>
<td>52,093</td>
</tr>
<tr>
<td>22 Mar 2020</td>
<td>5120</td>
</tr>
<tr>
<td>22 Apr 2020</td>
<td>1005</td>
</tr>
<tr>
<td>22 May 2020</td>
<td>82</td>
</tr>
<tr>
<td>22 Jun 2020</td>
<td>349</td>
</tr>
</tbody>
</table>

Source: https://www.worldometers.info/

The table above shows that the number of COVID cases reached its peak in February. The number of active cases increased a hundred times higher than in January. But China amazingly decreased the number ten times lower in the next month, then reduced again several times lower. China as the new country where COVID-19 was started has been locked down in its country in February to prevent the infection become worsening (Wang and Xie, 2020). As a result, China now is more prepared in dealing with COVID-19 cases than any other country in the world. It can be inferred from the real data on the internet that China now is almost free from the COVID-19 case and excluded from the top list of the countries with a high number of active cases (Huang et al., 2020).

If compared to table 1, the rising number of active COVID cases in China with the number of imports is not related at all. The number of mutton imports in February is much lower than March, but the active COVID case increased sharply. Whereas March as the month with the highest number of imports has ten times lower of active COVID case than February. May is the least active case than the other month, although the number of imports is higher than in February. It can be concluded that despite mutton bring harmful effects to people, mutton can give good nutrition needed to maintain health (Oyadyet al., 2017). Mutton is an excellent source of heme iron or iron substance from animal, which is superior to iron obtained from plant (non-heme) sources. Heme iron is absorbed significantly better than non-heme iron, to support the synthesis of red blood cells inside the body (Siri-Tarino et al., 2010). The consumption of heme iron from mutton can meet the requirement of nutritional goals for anemia. Moreover, mutton, contains glutathione which could help the ingestion process of fiber to prevent free radiations which could harm human organs (Dabbagh-Moghadam et al., 2017). Many people falsely recognize mutton as a part of goat meat/chevon, despite some striking differences, such as its fragrance. Mutton is commonly obtained from lamb or sheep which has 12 months of age or younger, while goat meat is obtained from older animals (Islam et al., 2018). Meat from mutton is tenderer than the meat from goat due to differences in the size and fibers of the meat. As a result, mutton can be digested easier than goat meat which is helpful for elders who have a weaker digestion system than young people (Hwang et al., 2018).
contrary, July was the least number in total imports but the highest number of active case. It can be concluded that the least total import of mutton, the higher the active cases was.

Mutton contains anti-inflammatory properties. Therefore, consuming mutton can inhibit inflammation in the blood vessels and stabilize the heart rate. COVID-19 can cause an immune response which could trigger inflammation throughout the body. Inflammation affects blood circulation and reduces the amount of oxygen to the heart (McAfee et al., 2010). Inflammation also causes artery walls to narrow due to the presence of fatty acids, causing blood clots. Clogged blood vessels can cause a heart attack. As a result, COVID-19 can accelerate inflammation faster which could end patients life, especially for elders (Rothan and Byrareddy, 2020).

The supply of mutton in daily consumption is good enough as anti-inflammation to prevent lack of oxygen and heart attack. Moreover, mutton from younger sheep such as lamb contains L-carnosine. In 100 grams of lamb, the average contains 400 mg of L-Carnosine, higher than beef which is only 365 mg. L-Carnosine is a compound that contains two amino acids (proteins), namely beta-alanine and histidine (Qi et al., 2018). L-carnosine has anti-atherosclerotic effects that can prevent the body against cardiovascular disease. Besides, L-Carnosine can reduce the glycation of sugar and protein in the body (Koeth et al., 2013). China has done strict regulation to cope with the COVID-19 such as built numerous temporary hospitals for patients of COVID-19, and banned any trip which has overseas route. Different from USA which claimed no COVID case in the early year of 2019, and the chaos and demonstration as a result of the George Floyd case causes the dissemination of COVID much faster (Yamey and Gonsalves, 2020). Even though China has the biggest number of population in the world, the keys to implementing correct medical protocol is the key to prevent more dissemination of virus (Wu et al., 2020).

CONCLUSION

Based on the result above, it can be concluded that the total import number of mutton do not have any negative impact on COVID cases. Rather, the total number of imports itself could reduce the number of active case. The data above shows that even though July was the least number in importing mutton in the USA, the active case was increased several times. Similar to the USA, the data about China’s total import of mutton also has no negative impact on active cases. Mutton, itself has some health benefits which can help the body to prevent being infected by coronavirus.

ACKNOWLEDGEMENT

This study process does not involve any participant because this study only uses secondary data that was accordant with the ethical research principle based on the regulation of the research ethics committee. The present study was carried out following the research principles. This study implemented the basic principle ethics of respect, beneficence, non - maleficent, and justice. There is no conflict of interest related to this paper in the past and the future. This study process is done with individual funding. The university will pay for article processing charges upon acceptance and received LOA.

REFERENCES

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