

Antibacterial test of OM-X extract against *Helicobacter pylori*

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The antibacterial effect of OM-X against *Helicobacter pylori*^{*1} was studied by paper-disk method. As a result, the growth-inhibitory zone (halo) which shows inhibition of *H.pylori* proliferation was recognized and it was showed that OM-X extract has the antibacterial activity against *H.pylori*.

^{*1}*Helicobacter pylori* (*H.pylori*)

H.pylori is a helix-shaped bacterium which can inhabit the stomach mucosa. The infection route is thought to be the oral infection. The infection rate of *H.pylori* tends to be higher in developing countries and lower in developed countries. However, as an exceptional case, it is said that about half of people in Japan, especially about 70% of people over the age of 50, are infected by *H.pylori*. Not only is *H.pylori* said to be causes of chronic gastritis, gastric ulcer, duodenal ulcer and so on, it was revealed recently that *H.pylori* is deeply related to gastric cancer. Therefore, *H.pylori* eradication is strongly recommended to people infected with *H.pylori*.

At the moment, there is a three medicine-combination therapy as the most common *H.pylori* eradication method.

One medicine for reducing the production gastric acid and two classes of antibiotics are used for the combination therapy with three medicines. However, there are problems. The first *H.pylori* eradication rate is about only 70% ,and also the strong side effects by using potent antibiotics are caused. Therefore, by using food which does not have much of anxieties to cause side effect, it is expected that the eradication rate of *H.pylori* will be improved and the strong side effects caused by antibiotics will be reduced while the role of antibiotics will be helped or complemented.

<Summary>

The antibacterial effect of OM-X against *Helicobacter pylori* JCM 12093 was studied by paper-disk method. A paper disk was impregnated with OM-X suspension which was sterilized by a process of steaming under pressure (121 degrees Celsius / for 15 minutes) after being diluted with distilled water. This was used as a test specimen. 15ml of Blood Agar Base No.2 (OXOID) with 5% Horse Blood was dispensed into a petri dish and got solidified. This was used as an agar medium. The test specimen was put on the surface of the agar medium inoculated with test bacterial suspension. This was incubated at 37 degree Celsius under an anaerobic condition and the existence of the growth-inhibitory zone (halo) was checked.

As a result, OM-X showed the antibacterial activity against *H.pylori*. Also, the growth-inhibitory zone (4.3mm) was confirmed in the petri dish where OM-X 80% diluted solution was used as a test bacterial liquid.

