Berberine was first used in China as a folk medicine by Shennong around 3000 BC. This is the first record of berberine in human history.

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It was also recorded by Compendium of Materia Medica, which is a Chinese herbology book written by Li Shizhen during the Ming dynasty.

Here are two examples about how to cure Dysentery, Abdominal pain and Heat stroke with berberine.

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But in those records above, they all recommend using berberine

In ancient times, in order to treat a headache, for example, one would add certain plants or flowers to boiling water and drink this tea. An approach like this would not necessarily be believed today.

We do not know the specific substances that work in curing diseases.

We need to find the exact active substances in the berberine，we need to explain the mechanism with science , with modern science.

I am going to talk about two main extraction methods that are mostly used.

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Soxhlet extraction

We all learned this process and equipment during our high school, it is not difficult:

put some coptis and 95% ethanol, heat it for a couple time. And then Filtration, Distillation. Add 1% acetic acid, heat it again, remove the solid , add concentrated hydrochloric aciduntil the solution is cloudy, Cool down to room temperature And we will get yellow needle-like berberine.

Pay attention to this , this is a heater.

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As time increases, the extraction rate is rising, so dose the solvent volume

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Ultrasonic extraction

Same process as the Soxhlet extraction, but only heat it with ultrasonic wave.

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As time increases, the extraction rate is rising, and this is the Relationship between extraction rate and number of times，In the same time, the more times we use ultrasonic, the higher the extraction rate will be.

Now we have berberine , and we can use it in the clinical