

Treatment of oral ulcer based on TCM syndrome differentiation

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Abstract: Oral ulcer is a kind of ulcerative injury that occurs in the oral mucosa and is very common in clinic. In severe case, it can affect the quality of life of the patients. Western medicine treatment of oral ulcer is often prone to relapse, while the effect of traditional Chinese medicine treatment is remarkable.

Keywords: Oral ulcer; Traditional Chinese medicine; Syndrome differentiation treatment

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The full name of oral ulcer is recurrent aphtha ulcer (RAU). The clinical manifestations are numbers of round or elliptic ulcers of different sizes in the oral mucosa, ranging in size from rice grain to soybean, with the central depression and the surrounding mucosa red and slightly swollen.

Oral ulcers often occur in the buccal mucosa, medial lips, tongue, vestibular sulcus, *etc.*, generally being self-healing in about 10 days, but have the characteristics of periodicity and recurrence^[1]. According to the data, oral ulcers are more common in young people, with a prevalence rate of 9.53% for men and 20.82% for women. Western medicine is still unclear about the etiology and pathogenesis of oral ulcers, and believes that the occurrence may be related to genetic, mental stress, food, drugs, malnutrition, vitamin or trace element deficiency and other factors. Modern studies have shown that the incidence of oral ulcer is positively correlated with oral Hp infection ($r=0.942$, $P<0.05$). The positive detection rate of Hp in the stomach and oral cavity of RAU patients is high, and RAU is related to oral cavity Hp infection^[2]. Generally, local topical

medicines are used, such as lozenges, analgesics, gargles, *etc.*, and if necessary, immunomodulatory drugs are used for systemic treatment, but the efficacy is often poor and prone to relapse. The treatment based on traditional Chinese medicine (TCM) syndrome differentiation can usually achieve better curative effect. This paper mainly discusses from the two aspects of deficiency and excess, and it is summarized as follows.

1 Etiology and pathogenesis

Oral ulcers belong to the category of “aphthous ulcers and aphthous stomatitis” in TCM. In *Su Wen: Discourse on Qi Alternate Change*, it is mentioned that pathogenic fire of five internal organs inflames the mouth and causes aphtha and even heartache in severe cases. Medical doctors of all generations have also discussed this disease. In *General Collection for Holy Relief*, it is described that aphtha is caused by heat in the heart and spleen, with Qi in upper energizer burning mouth and tongue, leading to ulcers; besides, weak stomach Qi, less essential substance from cereals, and deficient yang with upper manifestation may also lead to aphtha. Therefore, we should not grasp one aspect to diagnose the disease, but should seek the origin of etiology and pathogenesis. The meridians and collaterals of the heart channel are tied to the tongue, and those of the spleen channel are tied to the mouth. The upward rushing of evil heat in heart and spleen flares up to mouth and tongue, leading to ulcer. In addition, the spleen and stomach are weak, and the deficient fire is flourishing, which makes the tongue and mouth aphtha. Shuhe Wang was mentioned in *Pulse Diagnosis* that it is aphtha if right Guan pulse is heavy, spleen is heat and mouth is dry. *General Treatise on the Cause and Symptoms of Diseases* says that the function of spleen

can be reflected from the mouth; if the viscera are heat, the heat of spleen will rush to the mouth and tongue, resulting in aphtha in the mouth and tongue. These all explain the relationship between heat of spleen and stomach and aphtha. It can be seen that the disease of oral ulcers is mainly in the heart, spleen and stomach, and the main pathogenesis is related to “fire”, which can be divided into deficiency fire and excess fire. The etiology can be divided into external sensation and internal injury. The external sensation is mainly to feel the pathogenic fire-heat and characteristic of fire being flaring up, easy to invade the upper part of the human body, with wind, cold and heat invading human body and causing aphtha. Internal injury is the imbalance of Qi and blood Yin and Yang in viscera, qi deficiency or Yin deficiency fire flourishing leading to internal injury, stimulating to aphtha. Excess syndrome is more common in flaring up of heart fire and stomach heat disturbing upward. Deficiency syndrome is more common in deficiency of stomach yin, insufficient fluid and kidney yin, and Yin deficiency fire flourishing. Therefore, TCM mainly discusses oral ulcers from two aspects of deficiency and excess.

2 TCM syndrome differentiation

2.1 Excess syndrome should purge heat and disperse fire

It is said in *General Treatise on the Cause and Symptoms of Diseases* that hand shaoyin is the heart meridian, and the function of heart can be reflected from the tongue; foot taiyin is the spleen meridian, and the function of spleen can be reflected from the mouth; if the viscera are heat, the heat of spleen will rush to the mouth and tongue, resulting in aphtha in the mouth and tongue. The tongue is the outward manifestation of the heart, and the heart collaterals are distributed on the tongue. Rise and fall of Qi and blood of heart can be reflected through color and shape of the tongue. Heart fire flares up to burn the mouth, leading to aphtha in the mouth and tongue. The clinical manifestations of aphtha caused by flaring up of heart fire include aphtha in the mouth and tongue, burning pain, dry mouth and thirst, sleepless at night, scanty dark urine and stranguria, red tip of tongue and yellow coated tongue, and rapid pulse, which should be treated by purging heart fire. Modified Daochi powder should be selected as the prescription. Che et al. used the modified Daochi power in the treatment of the recurrent oral ulcers, with the effective

rate of 95%^[3].

Peaceful Holy Benevolent Prescriptions pointed out that spleen and stomach have heat, with Qi arising from the lip, leading to the lip swollen with aphtha. The spleen and stomach are the pivots of the Qi function rise and fall. As the spleen Qi raises and the stomach Qi falls, the body's Qi function is harmonized. If the spleen and stomach have stagnated heat, the spleen is not ascending lucidity, the stomach is not descending turbidity, and the fire is internally depressed and cannot be distributed, stimulating to aphtha. The clinical manifestations of stomach fire attack are apthous redness and pain, epigastric burning with acid, hunger and discomfort, thirst, thirst with desiring cold drink, constipation, red tongue, thick yellow coating on the tongue, and slippery and rapid pulse, which should be treated by purging the pathogenic fire of stomach. Modified Qingwei powder should be selected as the prescription. Li et al. used Qingwei powder to treat 110 cases of oral ulcers, of which 92 cases were healed, with disappeared pain and healed ulcer point, showing a significant effect^[4].

2.2 Deficiency syndrome should nourish Yin to lessen fire

Complete Works of Zhang Jingyue said that mouth and tongue aphtha are mainly due to heat of upper energizer, which should be treated by clearing fire. However, patients with excessive exhaustion, pulse deficiency and insufficiency of splenogastric Qi cannot be cured by cold treatment. Therefore, although cool treatment has been used for a long time, it has no effect on aphtha. In this case, the reason should be investigated to tonifying heart and spleen or nourishing kidney water. *Sequel of ChonglouYuyao* mentioned that Yin deficiency of lung and kidney, external heat, pharyngalgia, laryngitis and mouth and tongue aphtha can be treated by nourishing Yin to lessen fire. Oral ulcer is mostly caused by the heat of the upper energizer, but also can be due to the course of disease delay, with the impairment of Yin, consumption of Qi and loss of fluid, leading to the deficiency of viscera, insufficiency of Yin fluid, and flaring up of deficient fire. Kidney can affect the formation, development and growth of bone and the tooth is the outer part of the bone. The onset of oral aphtha is closely related to the kidney. Deficiency of the kidney Yin, kidney failing to nourish liver, Yin failing to restrain Yang, and deficiency fire floating lead to burn of mucous membrane of mouth, thus causing

aphtha on the tongue and mouth. The stomach Yin is deficient, with less fluid to moisten and upward floating of deficiency fire, manifesting aphtha on the tongue and mouth.

The main clinical manifestations of fire excess from Yin deficiency are frequent onset of aphtha with pale in center depression and light red in surrounding, less pain, dry mouth, insomnia with restlessness, and feverishness in palms and soles, accompanied by soreness and weakness of waist and knees, intracranial and ear tinnitus, annoy, dry stool, red tongue with less coating, and thready rapid pulse. The treatment should be nourishing Yin to lessen fire. Gui and Wang used modified Yiwei decoction in the treatment of oral ulcer, and the effect is significant^[5].

3 Typical cases

Ms. Li, female, 35 years old, admitted to our hospital in October 2018. Chief complaint: recurrent oral ulcer for one year. The patient has repeated oral ulcers over the past year, with multiple ulcers of varying sizes visible on the buccal mucosa, the inside of the lips, which were light red in surrounding and pale gray in the middle. The manifestations include obvious pain, dry oropharynx, dry stool, normal urine, red tongue with less coating, and thready rapid pulse. The syndrome is fire excess from Yin deficiency, which should be treated by nourishing Yin to lessen fire. Modified Yiwei decoction should be selected as the prescription, with 12 g of Shashen (*Adenophora* root), 15 g of rehmanniae praeparatum, 15 g of radix ophiopogonis, 6 g of radix polygonati officinalis, 10 g of radix cyathulae, 15 g of dendrobe, 15 g of lalang grass rhizome, and 6 g of liquorice, for a total of 7 doses, decocted in water, one dose daily.

Stomach belongs to earth in the five elements and Yang in the viscera, preferring moisture to dryness. If the stomach Yin is deficient to cause endogenous deficiency heat, the deficiency fire will be flared up to stimulating to aphtha. The stomach Yin fluid neither can nourish the oropharynx, leading to dry oropharynx,

nor can moisten the large intestine, resulting in dry stool. Red tongue with less coating as well as thready rapid pulse are all the manifestations of internal heat due to Yin deficiency. In the prescription, rehmanniae praeparatum and radix ophiopogonis are sovereign drugs, which are top grade for benefiting stomach; radix polygonati officinalis is an adjuvant drug, which can nourish Yin and generate fluid, thus to strengthen the nourishing Yin effect of rehmanniae praeparatum and radix ophiopogonis; dendrobe can nourish kidney Yin; radix cyathulae can make the heat downward; lalang grass rhizome can remove heat to cool blood;

liquorice can reconcile the other herbs. The combination of the herbs above can tonify Yin to benefit stomach and nourish Yin to lessen fire.

4 Conclusion

In conclusion, the occurrence of oral ulcers is closely related to “fire”. In TCM, the treatment is mostly based on syndrome differentiation of deficiency and excess. Therefore, the eradication of HP is also crucial for the treatment of oral ulcers. In a word, the treatment of oral ulcer is a comprehensive process, during which diet and other aspects should also be paid attention to, so as to achieve comprehensive treatment and early recovery.

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