

胃肠道常见疾病中医辨证 与唾液渗透压的关系

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“涎”即唾液，为“脾”所主。脾胃阴阳失调，必然影响唾液的质和量。为探讨“脾”的实质，我们将唾液渗透压（渗透浓度）作为指标，对几种胃肠道常见疾病的中医辨证进行了观察，报告如下：

病例选择

本组 50 例均系住院病人，全部经钡餐透视或内窥镜检查，部分病例作过病理活检，按其典型症状和体征明确诊断。其中胃十二指肠溃疡 29 例；上消化道出血 3 例；慢性胃炎 10 例；溃疡性结肠炎 4 例；慢性肠炎 1 例；十二指肠郁积症 2 例；十二指肠憩室 1 例。以上病例均按以下标准进行辨证分型：

一、脾胃虚寒型：上腹隐痛，喜暖喜按，喜热饮，形寒肢冷，吐清涎，食减，饭后饱胀，便溏，体倦，或口淡不渴，得食痛减，暖气吞酸，肠鸣腹泻。舌淡或胖嫩，有齿痕，苔白润。脉缓弱或细弱，或沉细，或虚大。

二、肝胃不和（肝郁）型：上腹多为胀痛，胁痛，心烦，易怒，口苦，或胸痛，眩晕，呕酸，舌红，苔薄白或薄黄。脉弦或弦数。

三、肝郁脾虚型：在脾虚诊断确定的基础上兼有肝郁型症状表现者。舌红或淡，苔白。脉弦细。

四、胃阴虚型：上腹多为灼痛，口干思饮，食减便干，或五心烦热，盗汗，口疮。舌红少苔或剥脱。脉细数。

本组 50 例分属以上证型，其中胃十二指肠溃疡：脾胃虚寒型 4 例，肝胃不和型 10 例，肝郁脾虚型 14 例，胃阴虚型 1 例；上消化道出血：脾胃虚寒型 2 例，胃阴虚型 1 例；慢性胃炎：脾胃虚寒型 1 例，肝胃不和型 3 例，肝郁脾虚型 6 例；溃疡性结肠炎：脾胃虚寒型 2 例，肝胃不和型 1 例，肝郁脾虚型 1 例；慢性肠炎：脾胃虚寒型 1 例；十二指肠郁积症属肝郁脾

虚型 1 例，并和十二指肠憩室分别属胃阴虚型各 1 例。

材料与方法

让病人前一天晚上临睡前漱口，去除食物残渣，此后不再进食，于第二天早晨起床前嘱病人用事先备好的干燥小药杯接取自然流出的唾液 5 分钟。然后用消毒小棉签蘸取 5% 柠檬酸溶液（小棉签蘸湿为度），涂于病人舌体上面前半部，立即低头用另一只小药杯接取刺激后自然流出之唾液 5 分钟。然后将取得酸刺激前后唾液标本各一份，立即送检。

测定方法采用上海第一医学院制造之 FM—2 型冰点渗透压计（Freezing point osmometer），应用冰点下降法进行唾液渗透压的测定。测定数值用毫渗克分子浓度表示（mosm/kgH₂O）。

测定结果

测定结果见附表：

附表 各型胃肠道疾病组与 51 例健康
对照组唾液渗透压值

辨证分型	例数	渗透压 mosm/kgH ₂ O ($\bar{X} \pm SD$)	
		酸刺激前	酸刺激后
脾胃虚寒	10	90.3 ± 55.33	75.5 ± 25.87
肝胃不和	14	118.71 ± 39.07	105 ± 40.51
肝郁脾虚	22	104.22 ± 61.75	81.32 ± 32.78
胃阴虚	4	111.25 ± 43.86	92.5 ± 25.33
健康对照组	51	87.59 ± 35.76	83.96 ± 24.77

统计学处理结果：1. 健康对照组、各型胃肠道疾病组，酸刺激前后唾液渗透压均无显著性差异（ $P > 0.05$ ）。2. 各型胃肠道疾病患者中，肝胃不和型组与健康对照组唾液渗透压相比较，酸刺激前有非常显著差异（ $t = 2.829$ $P < 0.01$ ），酸刺激后有显著差异（ $t = 2.464$ $P < 0.05$ ）。其他各型胃肠道疾病患者与健康对照组唾液渗透压相比较，酸刺激前后均无显著差异。

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讨 论

唾液是由腮腺、舌下腺、颌下腺和无数小唾液腺分泌的消化液，是消化液中唯一的低渗液。根据 Thompson 和 Wootton 的材料，国外健康人唾液渗透压平均约为 $150\text{mosm/kgH}_2\text{O}^{(1)}$ 。目前尚未见到国内的有关资料报道。唾液无色无味，近于中性 ($\text{pH}6.6\sim7.1$)，含有粘蛋白等有机物及钠、钾、钙等无机盐，水分约占99%。唾液的分泌受神经内分泌的支配，管理唾液分泌的神经装置由位于延脑的分泌中枢组成。这些中枢接受来自口腔、咽部和嗅区的传入神经，并通过副交感神经和交感神经发出传出神经以支配腺体⁽²⁾。副交感神经兴奋占优势则表现为唾液分泌稀薄而量多，交感神经兴奋占优势则表现为唾液分泌粘稠而量少。实验证明：刺激交感神经所形成的唾液与刺激副交感神经所形成的唾液相比，前者含有较低浓度的钠和较高浓度的钾、钙和重碳酸盐。肾上腺皮质盐类固醇具有可降低唾液中钠和升高钾的浓度的作用⁽³⁾，因而临床可利用唾液中 Na/K 的比值变化了解盐皮质激素的活性。高堦岩等测定了41例慢性气管炎有脾虚见证患者的植物神经功能，认为脾虚病人不仅有胃肠道方面的病变，而且还具有植物神经系统的功能紊乱⁽⁴⁾。“脾”与消化道及消化功能关系密切⁽⁴⁾。

本文结果表明，脾胃虚寒型之唾液渗透压稍有升高，脾胃虚寒患者有吐清涎见证即唾液量多而稀薄，属副交感神经兴奋占优势。唾液在高分泌率时钠和氯离子的浓度比低分泌率时为大。所以唾液在低分泌率时比在高分泌率时的渗透压为低⁽²⁾。第一军医大学在慢性气管炎和溃疡病研究中均发现脾虚病人唾液中钠离子增高而钾离子降低，钠钾比值升高，还发现，在未受到刺激的状态下，肾阳虚型慢性气管炎病人的唾液中钠离子浓度显著高于其他类型的病人。他们认为肾上腺皮质激素，特别是醛固酮能促使唾液腺保留钠和排出钾⁽⁵⁾。醛固酮直接作用于导管，使钠的重吸收和钾的分泌增加⁽²⁾。提示这些脾虚及肾虚病人的电解质失调，可能与肾上腺皮质功能不足有关⁽⁶⁾。“脾虚”和“肾阳虚”反映在唾液中均表现为钠离子浓度增高而钾离子浓度降低，在钠、钾离子浓度变化方面符合肾上腺皮质功能不足的表现，而肾上腺皮质功能不足的早期可能表现为“脾虚”，晚期才表现为“肾虚”。本组脾胃虚寒型患者中，大多尚未表现出肾阳虚症状，脾虚尚未及肾，故其电解质失调在量变程度上，尚不足以引起唾液渗透压发生显著性差异。其次，溶

液的渗透压是由单位容积中溶质的颗粒数目决定的。即使在“脾虚”情况下钠离子显著增加，钠、钾离子浓度比值增高，但因钾离子减少，总离子数未必有显著增加，所以渗透压值与健康对照组相比较无显著差异。倘若能同时测定唾液中钠离子、钾离子的含量，可能会更清楚地说明问题。

肝郁脾虚型患者的唾液渗透压虽有升高，但与健康对照组比较亦无显著性差异。可能也因有“脾虚”症状，其表现与副交感神经兴奋占优势时的症状相似。唯肝胃不和型患者的唾液渗透压显著升高。该型的症状，中医辨证多偏于实证、热证，和交感神经兴奋占优势时的症状相似。可能与植物神经功能紊乱，主要是交感神经兴奋占优势有关。胃阴虚型虽亦有交感神经兴奋占优势的类似表现，但本虚而标实，其所表现的热象为“虚热”，是在低水平基础上的相对阳盛，故虽有热象，但唾液渗透压无显著升高。

可见同为胃肠道疾患，按中医不同辨证分型，反映在唾液渗透压变化上也有不同。很可能与大脑皮层——皮层下中枢——植物神经功能有关。初步认为，从胃肠道常见疾病患者唾液渗透压的动态变化中，似可反映出“脾”功能在调节水盐代谢方面有一定的作用。其机制有待进一步探讨。

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改 刊 启 事

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Abstracts of Original Articles

A Preliminary Exploration of Reducing GPT in Chronic Hepatitis by Means of "Bian Zhen Lun Zhi"

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The GPT value in serum, if persistently and repeatedly abnormal, is one of the important biochemical indications in chronic hepatitis. In the treatment of chronic hepatitis by means of TCM-WM, the principle of "Bian Zhen Lun Zhi" (辨证论治, diagnosis and treatment should be based on an overall analysis of symptoms and signs, including the cause, nature and location of the illness and the patient's physical conditions) should take into consideration relevant findings of modern medicine. This paper presents the preliminary results of our practice with some case reports to illustrate our four approaches to the subject.

1. To change the reactivity of the organism: Patients with low value of GPT tend to have skin itching while the liver remains histologically normal or there are only nonspecific inflammatory reactions in it. The inhibition of reactive inflammation by *Paeonia suffruticosa*, *Radix Notoginseng*, *Radix Cynanchi Paniculati*, *Herba Ajugae* and *Radix Sophorae Flavescens*, etc. is helpful in reducing GPT value. For instance, the GPT value of a young female patient had remained 400u or so and HBsAg(+) for 4 years. After administering 24 doses of our prescribed Chinese herbal medicine, her GPT value reduced to normal.

2. To adjust the peripheral pH value of the liver cells: As low pH value at the periphery of the liver cells may reduce the release of GPT, the compound prescription can increase its effectiveness in reducing GPT when *Achyranthes Bidentata*, *Radix Paeoniae Alba*, *Fructus Crataegi* and *Fructus Mume*, etc. are added to it. After administering 14 doses of the Chinese herbal medicine to a young male patient with persistent abnormal GPT value and HBsAg(+) for two years, his GPT value reduced to normal.

3. To enhance the cell-mediated immunity of the organism: *Radix Astragali*, *Fructus Gardeniae*, *Ramulus Loranthi*, *Radix Scutellariae*, *Lonicera japonica*, etc. can enhance the functions of cell-mediated immunity. After administering the Chinese herbal medicine for a month or so to a young male patient with abnormal GPT value, HBsAg(+) and subnormal cell-mediated immunity for 9 years, his GPT reduced to normal and cell-mediated immunity recovered. No relapse was found in the following 5 years.

4. To regulate the metabolism of the patient: Many Chinese herbal medicines are effective in correcting metabolic disorders caused by chronic hepatitis, for instance, *Cornu Bubali*, *Radix Notoginseng*, *Bombyx mori*, etc. can increase the level of albumin, while *Radix Astragali*, *Semen Persicae*, *Achyranthes Bidentata*, *Angelica Sinesis*, *Rhizoma Ligustici Wallichii*, *Radix Salviae Miltiorrhizae* can inhibit the production of globulin. A middle-aged male patient with active chronic hepatitis was found that all indications of his liver functions had been abnormal for more than 3 years, such as GPT over 500u, TTT over 20u, A/G = 2.8/3.6g% etc. After two and a half months' administration of the Chinese herbal medicine, he recovered in an all-round way and no relapse occurred for more than one year.

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A Preliminary Study on the Relationship between Immunity and Differentiation of Symptom-Complexes in CHD

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A preliminary study was performed in patients with coronary heart disease (CHD), who were divided into two groups: deficiency of Qi(vital energy) and Yin(vital essence) of the heart (DQYH, 心气阴虚) and deficiency of Qi(vital energy) of the heart (DQH, 心气虚), so as to investigate the relationship among immunity, cAMP level in lymphocytes, and differentiation of symptom-complexes (DSC). The results showed that cAMP level in lymphocytes was higher in patients with DQYH than those in DQH ($P < 0.001$). This accounts for their relation with DSC. As compared with the normal control group, the percentages of lymphocytic transformation, E-rosette formation, and lymphocytes of acid α -naphthyl acetate esterase staining positive were much lower in DQYH and DQH ($P < 0.05-0.001$). This suggests an impaired cellular immunity in DQYH and DQH, but there is no significant difference between DQYH and DQH. The impaired cellular immunity may be a common feature of insufficiency symptom-complex(虚证). This may relate in part to the increment of cAMP level in lymphocytes. Changes of IgG, IgA, IgM in plasma were not significant.

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Types of Common Gastrointestinal Diseases in TCM in Relation to Salivary Osmotic Pressure

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"Slobber" is saliva and its secretion is determined by "Spleen". Naturally, the imbalance of Yin and Yang in spleen-stomach will influence the quality and quantity of saliva. In order to explore the essence of "Spleen", salivary osmotic pressure (osmotic concentration) was used as an index and 50 cases with common gastrointestinal diseases were observed. They were divided into 4 types according to TCM differentiation of symptom-complexes. In addition, 51 healthy persons were taken as controls. The results showed that changes of salivary osmotic pressure varied with different types of gastrointestinal diseases which had the same outward manifestation. The salivary osmotic pressure increased in three types, namely, hypofunction of the spleen and stomach with manifestations of cold (脾胃虚寒), stagnancy in the liver and deficiency of vital energy of the spleen (肝郁脾虚), and deficiency of vital essence of the stomach (胃阴虚), in which there was no marked statistical difference if compared with the healthy persons, but a significant difference ($P < 0.05$) and a very significant one ($P < 0.01$) were present in the type of disharmony of the liver and the stomach (肝胃不和). The preliminary impression is that kinetic changes of salivary osmotic pressure in common gastrointestinal diseases seem to reflect the function of "spleen" which plays a role in regulating water and saline metabolism.

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