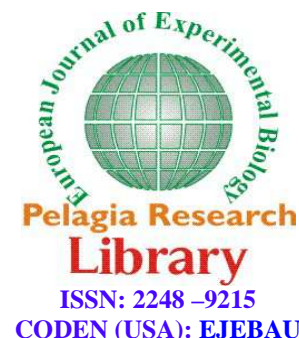




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### Low back pain and point of views in Iranian traditional medicine

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#### ABSTRACT

Backache is among the most common causes of patients' visits to health professionals. In conventional medicine, treatments for backache mostly comprise maintenance/supportive therapy and despite the advancements in imaging techniques, the variety of treatments and increased costs, better treatment outcome for this condition has yet to be observed. Therefore, evaluation of treatment approaches in other systems like in Iranian traditional medicine seems necessary in order to find new preventive or therapeutic measures for this condition. Treatment in traditional medicine is mostly based on elimination of the cause and symptomatic treatment is avoided as much as possible. Recognizing the causes of backache is the main part of its treatment course. The present study reviews signs and symptoms of this condition collected from various resources and references in traditional medicine. Back pain in traditional medicine is equal to dorsalgia or backache (Vaja-El-Zahr in Arabic) and is divided into two main groups of simple and materialistic type. Symptoms and method of diagnosis for each group is separately discussed.

**Key words:** Back pain, Dorsalgia, Iranian traditional medicine

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#### INTRODUCTION

Backache is among the most common causes of patients' visits to health professionals [1-3]. About ½ to ¾ of adults will experience backache during their life time. Approximately 40% of adults experience at least one backache attack per year and 15-20% of adult population are suffering from back pain at the moment [2]. Since not all the patients with backache present to the health care centers, precise statistics are not available regarding the prevalence of this condition. The incidence of this condition used to be 7-8% but now it has been estimated as 40-50% [4]. Backache is a very costly disease and carries direct therapeutic costs as well as high social burden. A large part of increased costs during the recent years is due to the advanced imaging techniques [5, 6, 7]. However, despite the wide range of suggested treatments and advancements in imaging techniques better treatment outcomes have yet to be noticed [7]. Conventional treatments for back pain include maintenance measures, local and systemic administration of analgesics, anti-inflammatory drugs and medications inhibiting or regulating the immune system and surgery [8]. Each of these treatments has its own side effects and is sometimes associated with a secondary complication worse than the primary condition [7]. In general, back pain is a costly dilemma in the current medicine

and the conventional medicine in many cases is unable to efficiently treat this condition. Considering the newly emerged global interest in traditional medicine, search for a treatment strategy for this condition in the Iranian traditional medicine seems necessary. Treatment in traditional medicine is based on recognition of the cause and symptomatic treatment is not acceptable. Thus, the present study sought to assess the causes of this condition from the Iranian traditional medicine point of view.

**MATERIALS AND METHODS**

This review study evaluated accredited Iranian traditional medicine resources of various centuries such as Al-Qanun fi al-Tibb by Avicenna, the Exir-e-Azam of Hakim Azam Khan, the Sharhe Asbaab-o-Alaamaat of Samarghandi, Teb-e Akbari and etc. Backache has been discussed in traditional medicine resources as dorsalgia or back pain [Vaja-El-Zahr in Arabic]. Thus, first the relevant texts regarding this condition were collected and then data regarding the causes and symptoms of different types of back pain were categorized and presented in separate tables to facilitate further interpretation.

**Anatomy of the back [Zahr in Arabic] from the traditional medicine point of view:**

The back area has been described somehow differently by various traditional medicine resources. In some text books, the back area includes thoracic and lumbar vertebrae [Qatan in Arabic][9-10] while some others only include the thoracic vertebrae [11]. In review of the topics regarding back pain we encounter the term “Solb” in Arabic which includes the lumbar and sacral [Ajaz in Arabic] regions [12].

**Types of backache (Vaja-El-Zahr in Arabic):**

Back pain can be classified into two groups of simple and materialistic types.

A) Simple: In this type of back pain, the dominancy of hot, cold and dry qualities cause pain in the back area and no disease-causing materials [the four humours or the gas] are involved.

B) Materialistic: One of the above mentioned disease-casung factors is involved in development of back pain [Diagram 1][13, 14, 15].

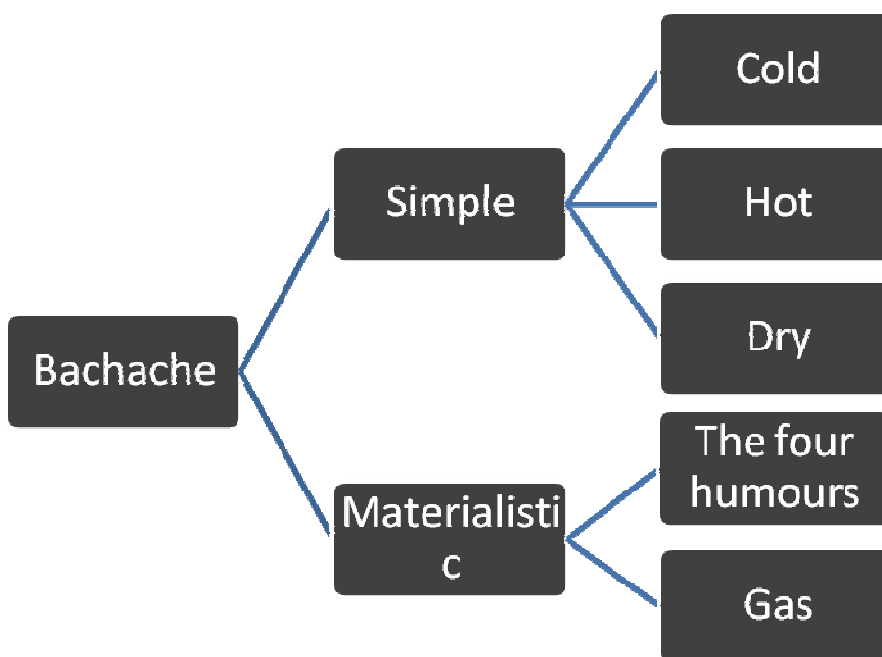


Diagram 1. Types of back pain based on the presence or absence of disease-causing material

**Pathology:**

Causes of pain especially back pain in traditional medicine generally include:

Simple hot intemperament: Heat results in expansion and porosity of the tissue and separation of moist from the dry substance and leads to evaporation and sublimation of moist and sedimentation of dry substance. This process causes loss of continuity and leads to subsequent development of pain. Simple cold intemperament: Cold materials cause contraction and condensation of organs and tissues and result in subsequent loss of continuity. Hot and cold intemperament per se cause pain because these two are subjective qualities and when the susceptible organ is affected by them, pain, which is a reaction/passivity is resulted. Simple dry intemperament: Dryness causes contraction which per se leads to loss of continuity and subsequent development of pain. It should be mentioned that contraction and condensation in constipation do not develop spontaneously and occur due to the lack of moisture that should be present in the porosity of the tissue/organ as observed in a flower after it perishes. Point to remember: Simple wet intemperament cannot cause pain because wetness is a quality that facilitates tolerance of a problem and cannot be the cause of continuity loss.

**Table 1. Pathophysiology and predisposing factors for development of joint pain**

Cause and the predisposing factor	Mechanism
<b>A. Simple back pain</b>	
Exposure to cold	Causes simple cold intemperament that can lead to contraction and condensation and result in subsequent development of pain
Exposure to heat	Causes simple hot intemperament that can lead to expansion, porosity and separation of moist from the dry substance and cause subsequent pain
Evacuation	Causes simple dry intemperament that can lead to contraction due to dryness and results in development of pain
<b>B. Materialistic back pain</b>	
- Consumption of food with cold temperament	Production of crude phlegm in muscles and back vertebrae
- Whatever stimulates/triggers materials	Infiltration of still phlegm in the body and in the site or transfer of gas evaporated from the phlegm to the site
Excessive sexual intercourse	
Anger	
Excessive toil	
- Causes of vertebral displacement which has not been completely established	
Trauma and fall	Causes weakness in the site and makes it vulnerable to the disease-inducing materials
No trauma or fall	Due to the presence of gas, acute swelling or thick moisture, pain occurs
Causes of dominance of blood	Hyperemia of the back vessels due to the increased blood supply
Gassy foods	Gas entering the back area
Association with some underlying conditions	Pain occurs as the result of renal, uterine or pulmonary disease
Crisis	Due to the stimulation of materials in the body

**Table 2. Clinical symptoms of back pain based on the causative agent**

Cause of back pain	Symptoms, harms and benefits
Simple cold temperament	Light pain, gradually becomes chronic, cold in palpation, benefiting from walking, exercise, rubbing and heat, exacerbated at night and in cold
Phlegm production in the back region	Heavy pain, progressively increased pain, heaviness, and other symptoms mentioned in simple cold temperament, cold in palpation
Infiltration of phlegm in the back	Heavy pain, cold in palpation, appearance of pain after anger, sexual intercourse, exhaustion and whatever stimulates the material
Gas	Continuous migrating pain, less heaviness, aggravated by gassy foods and improved by warming and oiling with warm oils
Simple hot temperament	Inflammation and irritation, body lightness, hot in palpation, no palpitation, no colored urine, thirst, benefitting from cold and cooling agents
Hyperemia of back vessels [materialistic hot temperament: blood dominance]	Pain and palpitation in the entire back area, hotness of the site, red discoloration of the site, aggravation of pain in movements, severe thirst and other symptoms of blood dominance
Uterine, renal or pulmonary disease	Signs and symptoms of disease in the respected organ
Causes of dislocated vertebra that has not been completely established	
Trauma and fall	No history of trauma
Is due to the hot swelling	Severe prickling pain, acute fever, thirst, strong pulse, dark colored urine
Is due to gas	Intensity of pain is variable and vertebral dislocation occurs after the development of back pain
Is due to the constipated temperament of the organ	If the area is oiled, the oil is highly absorbed, association with factors that confirm the constipated temperament of the organ like repeated vomiting
Is due to the materialistic wet temperament	Pain at the time of massaging the area with oil, oil absorption is low, other symptoms indicative of wet temperament are present

Pain associated with the presence of a disease-causing material: Presence of a disease-causing material can cause pain mediated by the loss of discontinuity. This material can be any of the four humours or gas [16].

Different causes of back pain [both simple and materialistic types] have been demonstrated in Table 1 [11, 12, 13, 15].

#### **How to diagnose the causes of back pain:**

The first step in the diagnosis of the causes of backache is to differentiate between the simple and the materialistic types. In simple back pain no material is present and therefore there would be no heaviness. As the result, the pain develops gradually and by increased appearance of the causative agent, the resultant pain aggravates. Color of the joint does not change. In the materialistic type, the pain starts suddenly and based on the type of material which is the causative agent the color of the painful joint would be different from the other joints. On the other hand, due to the presence of gas, sputum or phlegm, the heaviness, continuity, contraction and migration of pain would be sensed differently. Table 2 presents the various causes of pain along with the clinical symptoms [13].

### **CONCLUSION**

Recognition of causes and symptoms of back pain and factors that contribute to its occurrence from the traditional medicine viewpoint can be helpful for suggesting practical treatment strategies for various types of backache. In this respect, we can consider the use of a drug with significant effects on the gastrointestinal system that enhances digestion and changing the temperament resulting in less production of sputum, phlegm or other materials that can cause backache. When selecting such medication, its strengthening effects on the back should also be taken into account. An important part of treatment is to modify patients' dietary regimen and food habits considering the material responsible for development of disease. Dietary regimen should be changed to prevent re-production of disease-causing materials in the body. The efficacy of this treatment protocol can be tested by conduction of clinical trials.

#### Definitions:

- Gas [Rih in Arabic]: A thick gas produced as the result of heating moisture [before turning into vapor]
- Vertebral dislocation [Hadabeh in Arabic]: Anterior, posterior or lateral displacement of lumbar vertebrae
- Vomiting: Excretion of substances from the body through any route i.e. diarrhea, vomit, cupping, phlebotomy [bleeding], sweat, menstruation and etc.

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