Drugs and Acupuncture:
The Energetic Impact of Antihypertensives

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ABSTRACT
The issue of a patient’s medications can be a matter of prime concern to medical acupuncturists. In this article, I use adverse effect profiles and pulse changes to explore the energetic effects of various antihypertensives and suggest that the intentional vector behind drug treatment for hypertension may be in direct opposition to that of acupuncture. Herein, I explore this issue and discuss four commonly used classes of drugs: \( \beta \)-blockers, angiotensin-converting enzyme inhibitors, calcium channel blockers, and diuretics.

Key Words: Hypertension, Drugs, Antihypertensives, Acupuncture, Pulse Diagnosis, Five Elements

INTRODUCTION
After working with chronic pain patients for many years, it has become increasingly apparent that drugs can be a major block to successful outcomes. In fact, I would go so far as to say that the use of various medications, from narcotics to antidepressants to anxiolytics, may be the single most important block to the healing process. But it can be hard to get people to stop taking medications. Most people in pain will often continue to opt for short-term symptom relief, even when they are aware of deleterious long-term consequences.

To complicate matters, patients seeking acupuncture are often ingesting a number of different chemicals. This situation poses a unique challenge and leaves the practitioner in the difficult position of trying to apply a system of medicine to clinical situations that the ancients could never have envisioned. Faced with a patient taking a complex drug cocktail, how is the physician acupuncturist supposed to assess the energetic impact of the drugs and/or walk the fine line between two widely divergent treatment paradigms?

One answer is to discontinue the drugs and then look at the energetic situation afresh, but this is often not possible for a variety of reasons, not all of them pertaining to strictly medical issues. Furthermore, the urgency to consider drug withdrawal varies with different medications. For example, few physicians would argue the benefits of helping patients withdraw from the use of narcotics, and acupuncture is increasingly being used as an adjunct to help with withdrawal. But what about a condition such as hypertension where the indication for use of drugs is rarely questioned? In today’s climate of evidence-based practice, it is almost heretical to ask such a question. Even so, acupuncturists might like to know what the energetic effects of antihypertensives are and whether they interfere with acupuncture or have hidden and untoward energetic consequences.

HYPERTENSION AND TRADITIONAL CHINESE MEDICINE
Hypertension can be difficult to treat with Traditional Chinese Medicine (TCM) and if a trial of acupuncture produces less than dramatic results, then continued drug treatment remains the norm. But, the wisdom of this is questionable. Flaws et al have written on the subject with reference to herbs, and state that the reason TCM does not work very well for hypertension is that hypertension is not a TCM diagnosis. The authors add that if one wants to get results, the energetic patterns underlying the condition, which are
rarely accurately described, need to be elucidated and addressed. Though I agree with this premise, there is another thorny issue that is seldom discussed: whether the drugs used to treat hypertension may themselves interfere with optimal acupuncture results.

**TCM Classification**

Hypertension is generally classified as:
- Flare-up of Liver fire
- Liver Yang rising with Kidney Yin deficiency
- Obstruction of phlegm and dampness
- Yin and Yang deficiency
- Qi and Blood deficiency leading to Liver Yang rising. 3

Hammer reduces the number of syndromes to 3:
- Heat in the Blood
- Deficient Yin causing Heat
- Heart Kidney Qi/Yang deficiency

He posits that the Yang excess of hypertension is an expression of Yin and Yang separation. 4

**Separation of Yin and Yang: The Qi is Wild**

In TCM theory, Yin and Yang separation is regarded as a profound energetic pathology. Hammer states that if Yin and Yang separation is not corrected early, it becomes increasingly irreversible until physiological breakdown occurs, a condition he calls the Qi Is Wild. He posits two scenarios leading to the development of the Qi Wild condition. In the first, an initial Qi stagnation leads to deficient Yin, then loss of Yang control, and predominantly Heat signs. In the second, an initial Qi deficiency leads secondarily to stagnation, followed by Yin and Yang separation and predominantly Cold signs. 5

Other authors concur that the Qi Wild condition reflects an advanced stage of Yin/Yang separation, with the potential for serious pathology to emerge. Poreert, for example, explains:

When the Qi is wild . . . the Kidney Essence is exhausted such that consequently, Yang active energies are dispersed uncontrolled. At the same time, it is a symptom that this Yang, this active energy, has already been greatly depleted or is about to be depleted. 5

It is worth remembering this progression of Yin-Yang separation as we discuss the energetic effects of antihypertensives because they all appear to accelerate the process.

**Adverse Effect Profiles and Pulses**

One way of appreciating the TCM energetic effects of a medication is through scanning its adverse effect profile and then making a best-guess inference as to what the effect might be. Such an approach may be augmented by attention to qualitative changes in the pulse as predicted by the drugs' mechanism of action, and supplemented by the observations of those who have taken the time to explore and record their findings.

Hypertension has effects that many physicians will intuitively recognize. Though few physicians will be familiar with the classic 28 different pulse characteristics of TCM, most will be able to recognize increased tightness/tautness, and differences depicting Yin/Yang opposites such as: floating vs sinking (surface/interior); slow vs rapid (cold/hot); weak vs full (deficiency/excess); and short vs long (also indicating deficiency/excess).

Dharmananda says that the hypertensive pulse is likely to be some variety of full, combined with wiry, tight, or tense. 6 Likewise, Hammer suggests the shape of the hypertensive pulse is taut, tense, tight, or wiry and shows volume changes reflecting a more robust, pounding, and overflowing quality. 4 He goes on to describe 3 pulse depths at which these qualities are felt: deep (organ), middle (blood), and superficial (Qi).

**Specific Medications**

**β-blockers**

β-blockers are some of the most commonly used drugs for hypertension. 5 Different β-blockers vary in their specific effects but their main mode of action is blockage of the β-adrenergic receptor sites in the heart, inhibition of renin in the kidneys, and inhibition of vasomotor centers. 8

Adverse effects of β-blockers include effects on the vascular system such as rhythm disturbances and cold extremities, effects on the respiratory system with bronchospasm and asthma, and more general effects such as fatigue, depression, and insomnia (Table 1).

A perusal of the adverse effects reveals that the reduction in Heart Yang (slowed heart rate, heart block, and impotence) is accompanied by the appearance of pathological Heat in various organs, such as the blood (purpura), face (hot flushes), lungs (skin rashes), and endocrine system (diabetes); and the fatigue experienced with β-blockers may be a combination of reduced Yang with Heat lurking in the interior. 9

Most of these effects could be explained by positing Liver Qi stagnation as the primary effect. In TCM theory, Liver Qi stagnation frequently transforms into Heat, which is then transmitted throughout the field via the Ke cycle.

The Pulse and β-Blockers

Although it is common knowledge that β-blockers slow down the pulse, the change in quality induced by β-blockers is perhaps less obvious. Some have said that β-blockers hinder the ability of the Qi to move the blood in the channels and collaterals, which would suggest they might weaken the pulse in some way (Anita Cignolini, MD, oral communication at TCM Conference, September 1991). Hammer suggests they cause a suppressed wave, which feels to the
palpating finger as if the very top of the normal wave were cut off or flattened, as if the wave is about to fully hit the finger and just stops short of the totality of the surge.4 Ross has said that they give rise to a flooding pulse (Jeremy Ross, oral communication at Canadian Oriental Medicine Symposium; March 26–28, 2004; Vancouver, British Columbia) (though I would associate this quality more with the calcium channel blockers [see below]). To the palpating finger, the flooding pulse feels normal as the wave begins, but disappears rather abruptly just as it reaches its apex. Porkert associates such a pulse with profuse Heat and considers it to be the result of a dissociation of active (Yang) and structive (Yin) energies, previously discussed as Qi Wild.5

Whatever the specific effect, it is clear that Yin and Yang separation occurs. In the situation of wave suppression, the Yang is diverted into other sectors. In the case of flooding, the flooding pulse feels normal as the wave begins, but disappears rather abruptly just as it reaches its apex. Porkert associates such a pulse with profuse Heat and considers it to be the result of a dissociation of active (Yang) and structive (Yin) energies, previously discussed as Qi Wild.5

**β-blockers, TCM, and Five Elements**

From a Five Element perspective, β-blockers might be understood as inducing a block between Wood and Fire. The adverse effects can then be understood as pathological energy being transferred via the Ke cycle to other organs, which suggests that their use may indeed accelerate the progression of Yin and Yang separation.

**ACE Inhibitors**

A second commonly used class of antihypertensives are the angiotensin-converting enzyme (ACE) inhibitors (and their cousins, the angiotensin II receptor blockers [ARBs]). Their mode of action is considered to be through inhibition of the renin-angiotensin-aldosterone system, but they also inhibit bradykinin degradation, stimulate the synthesis of prostaglandins, and reduce sympathetic activity.8 Adverse effects include effects on the kidney, heart, liver, lungs, blood, and CNS (Table 2).

Review of the adverse effects suggests that the hypotensive effect of ACE inhibitors is probably mediated through blocking Kidney Qi and Yang, with secondary effects of deficiency and stagnation in the Liver (elevated liver enzymes), Spleen (anorexia, nausea), Heart (myocardial infarction and hypotension), Lung stagnation (cough, pulmonary embolus), and the accumulation of Damp Heat (pulmonary infiltrates, angioedema).

**The Pulse and ACE Inhibitors**

TCM theory would probably associate the renin-angiotensin system with the Kidney Qi or Yang. Thus, if ACE inhibitors immobilize the Kidney Qi/Yang, it would prevent the rise of Yang out of the organ level. Hammer suggests that some antihypertensives reduce the robust and pounding qualities at the organ depth to diminish quickly at the blood and Qi depths.4 (Although he doesn’t specify the specific antihypertensives that do this, I suspect that he may be referring to the ACE inhibitors.)

Elsewhere, Hammer describes one predominantly diastolic form of hypertension that begins with chronic Kidney Yin deficiency and progresses to Kidney Yang and Heart Yang deficiency.4 He says that in this situation, the pulse tends to shift from tense at the organ depth on the left proximal position to feeble-absent. Conceivably, in this situation, Kidney Qi immobilization might make the pulse even
more feeble. If such a situation were spotted clinically, perhaps ACE inhibitors could be avoided and reserved for hypertension based in Liver excess conditions.

ACE Inhibitors, TCM, and Five Elements

From a TCM perspective, ACE inhibitors might be understood as inducing a block between Water and Wood. The reduced availability of Kidney Qi produces a global energy deficiency that resonates via the Ke cycle, leading first to Heart Qi deficiency and hypotension, then secondarily to Qi deficiency, Damp and Heat in the Earth and Metal sectors, with nausea, anorexia, and cough, and wet skin conditions.

Calcium Channel Blockers

Calcium channel blockers act by selectively inhibiting trans-membrane influx of calcium ions into vascular smooth muscle and cardiac muscle, causing peripheral vasodilation. In overdose, they can cause arteriolar vasodilation and depression of cardiac contractility. Patients may present with bradycardia, atrioventricular nodal block, and/or hypotension (Table 3).

<table>
<thead>
<tr>
<th>System</th>
<th>Adverse effects</th>
<th>Inferred TCM effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>MI, CVA secondary to hypotension</td>
<td>Heart Qi deficiency and stagnation</td>
</tr>
<tr>
<td>Central nervous</td>
<td>Headache, vertigo, confusion, ataxia</td>
<td>Liver Wind</td>
</tr>
<tr>
<td></td>
<td>Insomnia, dream disturbances, fatigue, depression</td>
<td>Disturbance of Hun</td>
</tr>
<tr>
<td>Skin</td>
<td>Erythema multiforme, Stevens-Johnson syndrome, angioedema, urticaria, pemphigus, photosensitivity</td>
<td>Heart Qi/Yin deficiency</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Nausea, anorexia, ileus, pancreatitis, dyspepsia, constipation, stomatitis</td>
<td>Spleen Qi deficiency</td>
</tr>
<tr>
<td>Liver</td>
<td>Elevation of liver enzymes, jaundice</td>
<td>Liver Qi stagnation, Damp Heat</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Cough, bronchospasm, rhinorrhea, pulmonary infiltrates</td>
<td>Lung Qi stagnation</td>
</tr>
<tr>
<td>Ears</td>
<td>Hearing loss, tinnitus</td>
<td>Deficient Kidney Qi</td>
</tr>
<tr>
<td>Kidneys</td>
<td>Increase in serum urea nitrogen and/or creatinine, renal dysfunction, elevated potassium, impotence</td>
<td>Deficient Kidney Qi</td>
</tr>
<tr>
<td>Blood</td>
<td>Decreased hemoglobin, decreased white blood cells and/or platelets, Bone marrow depression</td>
<td>Deficient Kidney Qi</td>
</tr>
<tr>
<td>Other</td>
<td>Alopecia</td>
<td>Deficient Kidney Qi</td>
</tr>
</tbody>
</table>

Abbreviations: CVA, cerebrovascular accident; MI, myocardial infarction.

Thus, as with β-blockers, use of ACE inhibitors may engender a further separation of Yin and Yang, particularly in those patients who have a preexisting Kidney Qi deficiency.
The Pulse and Calcium Channel Blockers

Calcium channel blockers have variable effects on pulse rate. Some, like nifedipine, can speed up the pulse while others, like verapamil and diltiazem, tend to slow it down and are sometimes used to treat tachyarrhythmias. My impression is that they are more inclined to cause the previously mentioned flooding pulse than the β-blockers, though I have also seen a hollow pulse (present at the Qi and organ levels, yet empty at the Blood level). This points to the probability that the calcium channel blockers disrupt Heart Yin and Yang, releasing Heat, which then floods to the surface and overflows.4

Calcium Channel Blockers, TCM, and Five Elements

The likely energetic site of calcium channel blocker action is in the Fire element itself, in the Emperor’s palace so to speak. Heart Fire is then channelled off-site via the Ke cycle leading to underfunctioning of the heart (Heart Qi deficiency) and pathologic Heat elsewhere. One curious adverse effect is tinnitus, which Jarrett says can result from Heat in the Small Intestine rising to SI 19 (Ting Gong). He further points out that such tinnitus can be a material expression of the patient’s inability to hear his/her Heart’s truth, in this case perhaps brought on by a drug that intentionally blocks the connection between the Heart Yin (HT) and Heart Yang (SI).10 All of which appears to indicate that calcium channel blockers have the potential to induce a most profound disruption of Yin and Yang.

Diuretics

Thiazide diuretics are probably the most commonly used drugs for hypertension. They lower blood pressure by decreasing plasma volume (by suppressing tubular reabsorption of sodium, thus increasing the excretion of sodium and water). They also reduce peripheral vascular resistance in the long term9 (Table 4).

Pulses and Diuretics

In contrast to β-blockers, diuretics do not slow the pulse. They are similar in that they both can engender a flattening of the top of the normal wave, known as a suppressed pulse.4 It is the mechanism that differs. While β-blockers give rise to flattening by blocking the rise of Yang energies, diuretics probably produce a similar effect through increased energy dispersal. Flaws, for example, has said that diuretics disperse the Qi,11 while Cignolini has said they damage Kidney Yang (Anita Cignolini, MD, oral communication at TCM Conference, September 1991). Interestingly, Hammer says that the subtle flattening found in the suppressed wave exists in a continuum with the flat pulse, which is deep and seems unable to come up to the finger through its own force.4 Both he and Jarrett imply a dispersal effect by positing that a flat pulse indicates that the Qi is able to flow out of an organ, but is not able to enter.10

Diuretics, TCM, and Five Elements

In TCM, the kidneys store the Jing and the Yuan Qi, and the Mingmen, located between the kidneys behind CV 4 (Guanyuan), CV 5 (Shimen), and CV 6 (Qihai), provides an alchemical reservoir that fuels Yuan Qi to the extraordinary and superficial energy meridians. The association between the kidneys and hypertension is well-known science. However, renal artery stenosis, one of the prime causes of malignant hypertension, actually arises in the area between the kidneys, precisely in the region of the Mingmen. (Perhaps the ancients knew more about modern physiology than we generally realize.)

From an energy standpoint, stimulation of Bladder Qi, with its concomitant Qi and fluid dispersion, will engender

<table>
<thead>
<tr>
<th>System</th>
<th>Side effects</th>
<th>Inferred TCM effect</th>
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<tbody>
<tr>
<td>Cardiovascular</td>
<td>Hypotension, myocarditis</td>
<td>Deficient Heart Qi</td>
</tr>
<tr>
<td>Central nervous</td>
<td>Dizziness, headache</td>
<td>Liver Wind, Liver Yang</td>
</tr>
<tr>
<td>Skin</td>
<td>Rash, photosensitivity, exfoliative dermatitis,</td>
<td>Wind/Heat</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Abdominal pain, bloating, anorexia, nausea,</td>
<td>Stomach Yin deficiency</td>
</tr>
<tr>
<td></td>
<td>constipation/diabetes, gastritis, pancreatitis</td>
<td>Spleen Qi deficiency</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>Insomnia</td>
<td>Liver invading Spleen</td>
</tr>
<tr>
<td>Liver</td>
<td>Elevated liver enzymes, jaundice, cholestasis</td>
<td>Heart Yin deficiency</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>Muscle cramps</td>
<td>Liver Qi stagnation</td>
</tr>
<tr>
<td>Sexual</td>
<td>Impotence</td>
<td>Kidney Yang deficiency</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Diabetes, hyperglycemia, elevated uric acid</td>
<td>Heat in the 3 Jiaos</td>
</tr>
<tr>
<td>Blood</td>
<td>Decreased white blood cells and/or platelets,</td>
<td>Blood Heat, Spleen Qi deficiency</td>
</tr>
<tr>
<td>Kidney</td>
<td>hemolytic anemia</td>
<td>Kidney Yin deficiency</td>
</tr>
</tbody>
</table>
Kidney Yin/Yang disharmony and increase the drain on the Yuan Qi at a time when the patient’s primordial energy might be better served by conservation. The impact is a further draining of the Kidney Jing with all its secondary effects such as chronic fatigue, osteoporosis, and premature aging in people who are often already Jing deficient. Thus, once again, it is apparent that diuretics exacerbate the progression of Yin/Yang disharmony.

**THE HIDDEN COST**

Though conventional wisdom shows treatment of hypertension to be beneficial in terms of cardiovascular events (such as reduced incidence of strokes, myocardial infarction, etc), the foregoing suggests there may be a hidden cost (Figure 1). Indeed, the energetic analysis predicts that drug treatment, by diverting pathological Heat, is likely to accelerate the process of Yin/Yang disharmony and lead to the emergence of other pathologies.

In this regard, a further perusal of adverse effects can be quite revealing. For example, diuretics result in an 11% increase in diabetes for every four years of therapy, can give rise to Wind-Heat related skin disorders such as psoriasis and eczema (Malabsorption and the skin, with particular reference to diuretics, Greenwood K., June 1986), and lead to an increased incidence of renal cell carcinoma. Similarly, β-blockers result in a 28% increase in diabetes. While having no effect on cardiovascular morbidity or mortality in primary hypertension, calcium channel blockers can produce profound heart block, and may even increase all-cause mortality. ACE inhibitors can give rise to Damp-Heat conditions such as cough, disturbed electrolyte balance, and angioedema, and can even aggravate liver and renal problems in some patients. Moreover, they may have less renoprotective effect than the pharmaceutical hype would suggest, probably being no more effective than a diuretic. When adverse effects occur, the potential replacements, the ARBs, may actually increase the myocardial infarction rate, and though they may slow renal deterioration in people with nephropathy, do little for the all-cause mortality rate. Then when two drugs are combined, such as diuretics with calcium channel blockers, or aspirin with ACE inhibitors, the detrimental effects can even be compounded.

Although such observations have been gleaned fairly from the literature, they could easily be critiqued or dismissed by citing other studies. The point that should not be missed, however, is that the pros/cons of various drugs are always going to be debatable, as each new drug jockeys for a favored position in medicine’s therapeutic armamentarium. Indeed, what is popular today is often demonized tomorrow because hermeneutics is not objective and opinions, whether personal or collective, are constantly in flux. That alone should be enough to suggest a need for an approach to hypertension that goes beyond the endless round of marginally useful utilitarian drug studies.

But, perhaps the deeper concern with the use of antihypertensives may not even be demonstrable by conventional studies at all because the blood pressure cuff cannot measure the less tangible areas of mind and spirit, where the Yin/Yang disharmony arises. Here, the separation proceeds unhindered, or may even be accelerated when drugs are used to alter some arbitrary numbers while the real meaning of hypertension remains ignored.

Were this to be recognized conventionally, the issue of Heat diversion and concomitant Yin/Yang separation would constitute a clinical conundrum, precisely because it challenges the wisdom of what is widely considered to be an industry standard. Little wonder, perhaps, that the deleterious energetic effects of antihypertensives are dismissed as unfortunate but manageable side effects.

**THE ROOT IMBALANCE**

Acupuncturists cannot indulge in the luxury of such denial. Yin/Yang separation is a ubiquitous energetic imbalance that lies unacknowledged behind virtually every chronic illness. In particular, it is a process set in motion by the mind’s attempt to interfere with the smooth flow of Qi, by turning away from things it does not like. This dissonance between Heart and Mind, or Yin and Yang, is the root psychic friction that in turn creates Heat and depletes the Yin.

Correction of this root imbalance requires something more than simply lowering blood pressure. Rather, it demands a profound attitudinal shift involving a radical reversal of intent. Once such a reversal has been accomplished, any remaining tendency to hypertension can often be addressed quite adequately with simple measures like adequate rest, meditation, a sensible diet, and regular exercise, rendering the issue of potential drug adverse effects largely irrelevant. Though such a reversal can certainly be facilitated with acupuncture, it can be diffi-
get curious about the deeper issues involved and take personal responsibility for outcome.44 For physicians, the experience of achieving results with less therapeutic effort, while at the same time helping patients get to the root of things, can transform the often stressful nature of medical practice while at the same time, re-create the levity and excitement perhaps last experienced in those first few days of medical school.

ACKNOWLEDGMENT

Figure 1 was designed by Richard Greenwood.

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