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The Unexpected Outcomes of Acupuncture: Case Reports in Support of Refocusing Research Designs

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ABSTRACT

Two distinct positive outcomes are possible with Classical Acupuncture; resolution of the "main complaint" for which the patient is seeking treatment and unexpected resolution of health concerns for which the patient is not seeking treatment. Two clinical cases are presented to illustrate this phenomenon clearly. In both cases, the unexpected outcomes follow logically from the central therapeutic imperative of Oriental medicine; treatment of both the patient's root and branch.

Research designs focused on single health conditions do little to reflect this central clinical reality. To highlight this problem, the two cases presented here are repositioned within the framework of research designs focused on single health conditions. It becomes clear that any eventual "gold standard" of acupuncture-appropriate research designs would reflect the full health care service provided by Classical Acupuncture. This, in turn, would ensure that health care policies based on research results would be appropriate to the realities of clinical acupuncture.

INTRODUCTION

The challenges facing acupuncture research have been extensively and actively discussed in recent years (Birch, 2002; Hopwood and Lewith, 2003; Lao et al., 2002; Lao and Ezzo, 2003; MacPherson, 2000; MacPherson et al., 2002; Richardson, 2002; Ritenbaugh et al., 2003; Sherman et al., 2002; Sherman and Cherkin, 2003; Verhoef et al., 2002).

The purpose of this paper is to animate the research design discussion with clinical case reports. Two cases from the author's clinical practice are used to highlight a central feature of clinical acupuncture—the fact that patients often come to the clinic seeking treatment for one or two specific complaints and leave with a myriad of benefits they did not expect to receive. The two cases presented below illustrate this phenomenon very effectively but in great contrast to one another. Implications for clinically relevant research design are discussed.

Attempts have been made to minimize the technical language of Oriental medicine, but it cannot be avoided altogether without losing the essence of the cases. Some case details described below are included to convey the complex chronology of twists and turns cases often follow.

CASE I

J.B., a 24-year-old nurse sought acupuncture for relief from headaches that were often severe enough to keep her home from work. The headaches typically coincided with ovulation and always included nausea and, often, vomiting.

10 years earlier, J.B. had undergone a left oophorectomy for removal of a 15-pound ovarian cyst. Cysts had recently developed on her right ovary and under her left axilla. She also reported very painful bilateral subcutaneous nodules on her feet, very close to the acupuncture point, KI 1. Her medical history included recurrent kidney stone attacks, long painful periods with heavy bleeding, scoliosis, right-hip pain, low-back pain, weak knees, and asthma since adolescence. She had suffered from hyperemesis gravidarum during her first and only pregnancy. In her case, this involved daily vomiting and an inability to hold down any food throughout the pregnancy. For much of that pregnancy she had been hospitalized and fed intravenously. J.B. reported that she and her husband had been trying to conceive a second child for a year, without success.

Her pulse was slippery and replete. Her tongue was pale with a thick, sticky white coating, peeling off in places.

J.B.'s full set of signs and symptoms present a very co-

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herent and clear multimanifesting presentation of the traditional Chinese medical notion of Phlegm. Disharmony in both the Kidney meridian and organ were clearly the background for the pathologic development of Phlegm. Painful nodules at KI 1 and Kidney stones are both along the Kidney meridian. In addition, the Kidney meridian trajectory is widely considered to include the ovaries (Matsumoto and Euler, 2002). Scoliosis, low-back pain, and weak knees are all under the visceral provenance of the Kidney system in Chinese medical thought.

During the first session, both assessment and treatment were based on Kiiko Matsumoto's (Matsumoto and Euler, 2002) interactive palpation, point selection, and needling strategies. Kidney-related points were central to treatment. It is important to note that J.B. had never had acupuncture before and had no understanding of meridians as concepts or as trajectories. In addition, she was only expecting to receive headache relief from the treatment.

Ten (10) minutes into the first treatment, J.B. experienced a "gentle bursting" sensation in her right ovary, after which she became deeply relaxed.

Through the following four weekly treatments, J.B. reported being headache-free. Her foot pain was greatly reduced also. On the fourth treatment, J.B. indicated that her period was a week late. A few days later, she telephoned the clinic to confirm her pregnancy. Although this is only conjecture, it is reasonable to suspect that the first treatment had released the small cyst from interfering with conception, perhaps through obstructing her right fallopian tube. She had become pregnant almost immediately after that treatment. She was informed of the potential for managing hyperemesis gravidarum with Classical Acupuncture and Chinese medicine.

Three (3) weeks later, hyperemesis was raging as strongly as it had in J.B.'s first pregnancy. With approval from her obstetrician, management via acupuncture was commenced. She was highly nauseated, vomiting several times daily, missing work 2 or 3 days per week, and unable to eat or contemplate food.

Initially, fairly basic textbook points for treatment of nausea and vomiting during pregnancy were used (points such as PC 6, CV 12, ST 21, ST 40); (West, 2001). The first treatment gave J.B. a reprieve of several vomit-free days, after which her symptoms gradually returned. The second treatment was considerably less effective and more imaginative thinking was required.

The Kidney meridian was carefully examined and palpated and KI 3 was added to the treatment protocol. The ensuing week saw dramatic response. It was as if this one extra key had unlocked a vital piece of the puzzle. In the following weeks, it became clear that adding KI 3 to the treatment made the difference between an average or poor week (extensive vomiting and inability to eat when KI 3 was omitted) and a very good week (no vomiting, very little nausea, and the ability and even desire to eat when KI 3 was included).

Each time after KI 3 was needled, J.B. reported an immediate sensation of salivary-gland swelling and a thickening of sublingual saliva production, followed moments later by an easing of these symptoms and a relaxation of any nausea that was present prior to treatment.

In fact, J.B. always experienced intense sublingual saliva thickening as a reliable nausea attack predictor. Most basic-level Traditional Chinese Medicine TCM textbooks (Xinnong, 1987; Maciocia, 1989; Wiseman and Ellis, 1996) offer the student no connection between saliva and the Kidney system. The connection can be found in the classics, however. The seventy-eighth chapter of the *Nei Jing Ling Shu* discusses body fluid organ correspondences and notes that the "Kidneys control saliva" (Matsumoto and Euler, 2002; Wu 1993). Furthermore, Clavey's seminal work on body fluids associates such a salivation irregularity with Kidney *Yang* Vacuity (Clavey, 1995). This connection fit very well with everything about this case.

Prior to the ninth visit during her pregnancy, at the juncture between her first and second trimester, J.B. developed an outbreak of severe raised and itchy skin on the dorsum of her left hand, the lateral aspect of her right calf, her cheeks, and the rims of her lips. The itching had become so intense, she had been to a hospital and to see her obstetrician, where it was suggested that a course of prednisone might be necessary.

Gestational pruritis is typically attributed to bile overflow from obstetric cholestasis (West, 2001). On further questioning, J.B. indicated she had been experiencing sharp gallbladder pain and bile in her throat during recent nausea attacks. Her right subcostal area was hypersensitive to palpation. The Gall Bladder and Triple Warmer channel fire points (GB 38 and TW 6) were both very tender on palpation. Based on a clinical strategy developed by Kiiko Matsumoto's teacher, Kiyoshi Nagano (Matsumoto and Euler, 2002), the Gall Bladder and Triple Warmer meridian metal and water points were needled. Following this treatment, the pruritis and right subcostal pain resolved quickly and durably. In fact, the entire case progressed dramatically. J.B. only required two more half-hour treatments, after which she experienced the remainder of her pregnancy free from the symptoms of hyperemesis or cholestasis.

Closer to her delivery date, J.B. returned to the clinic for the successful treatment of sacral pain. She eventually gave birth to a healthy baby, free of any complications. Several months after delivery, she phoned the clinic to report she was feeling very well.

CASE II

C.W., a 57-year-old retired nurse, came to the clinic with three main complaints: chronic acid reflux; a recurrence of perimenopausal symptoms (mild hot flashes, night sweats) after the recent discontinuation of hormone replacement

therapy; and 4 years of occipital headaches after sustaining a concussion injury.

C.W. responded well to treatment. She was treated according to abdominally based palpatory assessment and corresponding extraordinary vessel–based ion pumping cord treatment protocols developed by Yoshio Manaka (Manaka et al, 1995; Matsumoto and Birch, 1988). Not only did her three main complaints all respond but, after a few treatments, she reported a general sense of well-being she had not felt in many years. She sought regular treatment for several years.

As is often the case when people pursue ongoing treatment, facts emerge that are not revealed during the initial intake. During her tenth session, C.W. spoke joyfully of the complete resolution of a longstanding problem she had had. For years, her right thumbnail had been infected and painful. Visits to many medical specialists and several medications had brought no relief. The problem had remained intractable for years.

Of course, this improvement cannot be attributed to the acupuncture treatment with certainty. However, given its chronic and intractable nature and the fact that acupuncture was the only "new thing" in C.W.'s life, it seems far more reasonable to assume the connection than to deny it.

While the relief from perimenopausal symptoms, postconcussion headaches, and acid reflux were welcomed by C.W., it was the resolution of her thumbnail problem that she discussed with the greatest joy. It became her "barometer" of overall wellness.

DISCUSSION

These two cases manifest different extremes of a routine clinical experience. We shall call that experience, *the unexpected outcomes of acupuncture*.

Classically based acupuncture has at its very foundation, the principle of attending to both the "root" and "branch" of the patient. The root is that aspect of a patient's physiology and anatomy which, from the perspective of Oriental medicine, is a central disharmony. It is that which is most off balance in a person's system. The branch refers to the specific symptom for which the patient is seeking treatment. While the branch is a logical consequence of the root imbalance, it is not the only consequence. Root imbalances can give rise to many symptoms. The root-and-branch treatment approach makes it almost inevitable that the patient receiving this form of health care will have much more than a main complaint respond to treatment. This is not a secondary feature of acupuncture. It is central to correct treatment.

It must be noted that the term "unexpected outcomes" is relative to the patient's experience. The typical patient does not come to the clinic asking the acupuncturist to find and treat central imbalances (although it does happen from time to time). Most patients seek treatment for one or two "main complaints." From the patients' perspectives therefore, benefits beyond resolution of their "main complaints" are unexpected. But it must be emphasized that these outcomes are, in fact, not unexpected from the practitioner's perspective. They may well be unpredicted but are *not* unexpected. By framing the main complaint (the branch) within the context of one or more central imbalances (the root) and attempting to remedy both root and branch, the practitioner intends for the treatment to resolve all symptoms, which directly or indirectly have the root disharmony as their basis. What the practitioner cannot do with reliability is predict which symptoms beyond the "main complaint" will respond to the root treatment.

In J.B.'s case (and from J.B.'s perspective), the unexpected outcomes of treatment (conception and a well-managed pregnancy that would have otherwise been very difficult) were, arguably, far *greater* health outcomes than resolution of her main complaint (headaches). By understanding J.B.'s root disharmony as one of Phlegm and Kidney Deficiency, her full response to treatment was not at all surprising.

In C.W.'s case (and from C.W.'s perspective), the unexpected outcome (resolution of a chronic thumbnail problem) was, arguably, a far *smaller* health outcome than resolution of her main complaints (hot flashes, night sweats, headaches, gastroesophageal reflux). By understanding C.W.'s root disharmony of Blood Stasis and Blood Deficiency, her full response to treatment was not at all surprising.

In both cases, the unexpected outcomes of treatment were welcomed by the patient with great joy. Unexpected outcomes as "large" as pregnancy or as "small" as improved nail health all figured significantly in the patients' experiences of acupuncture.

The routine experience of unexpected outcomes in the Classical Acupuncture clinic has important implications for acupuncture research design. Recent years have witnessed the emergence of increasingly enlightened acupuncture research designs that honor and accommodate such core Oriental medical concepts as individualized pattern discrimination. But many of these studies remain confined to condition-specific domains, such as migraine headaches (Vickers et al., 1999), low-back pain (MacPherson et al., 1999), or depression (Schnyer and Allen, 2001). Such research questions and designs reinforce the perception of acupuncture treatment as an intervention primarily focused on specific health conditions (the branches). This research focus may ultimately have its own unexpected outcomes; distortions in health care policies directed at acupuncture.

Such concerns are clearly appreciated by a growing number of investigators in the evolving research design discussion (see, for example, Ritenbaugh et al., 2003). The cases presented here crystallize these concerns particularly well.

Consider the cases above through the lens of condition-specific research design. Reframing J.B. as a subject in a hypothetical study of acupuncture in the treatment of

headaches is instructive. J.B. would have provided strong evidence for the efficacy of acupuncture in the treatment of headaches. But such a study would have largely trivialized J.B.'s acupuncture encounter; she entered the clinic with unwanted headaches and left 10 months later with a wanted baby and a pregnancy experience far more positive than her first one. In fact, it is even possible that J.B. may have been exited from the "headache study" upon becoming pregnant; with her condition having become an undesirable confounding "variable."

On purely medical grounds, JB's benefits from her encounter with acupuncture included:

- Resolution of headaches
- Resolution of foot pain
- Achievement of a highly desired but previously unobtainable pregnancy
- Safe and effective management of hyperemesis gravidarum
- Much less missed work during pregnancy (compared to her previous pregnancy)
- Better functioning in her nursing job during pregnancy because she was not nauseated most of the time
- Quick resolution of obstetric cholestasis
- Improved baby health as a result of improved maternal nutrition during pregnancy from eating real food as opposed to the intravenous nutrition she would have required
- Less stress at home and with other family members during second pregnancy
- Mental and emotional benefits of having someone make sense of all of her signs, symptoms, and medical history
- Prospects of therapy following pregnancy to address effectively her asthma, any future ovarian-cyst problems, arch pain, and her tendency to develop kidney stones.

The limitations of a "headache study" in capturing J.B.'s experience are obvious.

In terms of health care economics, J.B. as a subject in a "headache study" would only have been compared to the cost of mainstream headache treatment. In truth, it should be compared to the possible or likely additive cost of some combination of:

- Fertility treatment
- A second ovarian surgery
- Hospitalization during pregnancy
- Lost work time during pregnancy
- Management of any other medical trajectories that this patient was likely to undergo within mainstream medical care (such as, for example, the downstream endocrine implications of having both ovaries removed).

Consider C.W.'s case in the context of condition-specific research designs. Whether she had been a subject in a hypothetical study of acupuncture in the treatment of perimenopausal symptoms, headaches, or gastroesophageal reflux, it is quite unlikely that such condition-focused studies would ever have documented the resolution of her chronic thumbnail affliction or the profound significance of that unexpected treatment outcome for the patient.

CONCLUSIONS

Two distinct positive outcomes are possible with Classical Acupuncture; resolution of the "main complaint" for which the patient is seeking treatment and unexpected resolution of health concerns for which the patient is not seeking treatment. The latter outcomes are unexpected from the patients' perspectives but are not unexpected from the practitioner's perspective as they follow logically from the central therapeutic imperative of Oriental medicine; treatment of both root and branch.

The cases reported above provide clear and practical demonstration of the need for acupuncture research designs to reflect the full health care service received by patients. Unexpected positive treatment outcomes are a very important part of clinical acupuncture. They must be fully reflected in the eventual "gold standard" of acupuncture-appropriate research designs. Studies focused on the full health care service provided by Classical Acupuncture would, in turn, generate results upon which acupuncture-appropriate health care policy could be based. Studies that remain focused on single conditions may ultimately generate health care policy distortions that do not resonate with Classical Acupuncture.

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