

Clinical Report 1 (Acupuncture)

The Cases of Acupuncture and Moxibustion Treatment for Pollakisuria and Nocturia during Pregnancy Thought to be Effective

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[Introduction]

Women undergo various physical and mental changes associated with pregnancy. Indefinite complaints classified as minor trouble are associated with suffering and pain that decrease the quality of life of the women during pregnancy. Yet, many of the indefinite complaints improve after the pregnancy and are mostly not actively treated with western medicine based on considerations of possible influences on the fetus. For those reasons folk medicines are adopted in the care for pregnant women, but currently the expecting mothers often endure these conditions until delivery. Here we report two cases in which the acupuncture and moxibustion treatment was considered to be markedly effective in pregnant women visiting a clinic for acupuncture and moxibustion treatment, who were particularly aware of pollakisuria and nocturia among indefinite complaints.

Further, in this manuscript we followed the treatment guidelines¹⁾ for overactive bladder of the Neurologic Bladder Society and classified the complaints of patients with a too high frequency of micturitions during the daytime as pollakisuria, and complaints about getting up more than once during the night to void as nocturia.

The patients consented to the publication of this case report after receiving oral explanations.

[Patient No. 1]

A 36-year old woman, primipara, housewife.

She visited our clinic in order to prepare herself physically for the delivery. During the first visit the gestational age was 22 weeks and 6 days, height 165

cm, weight 64 kg (weight increased by 5 kg from the 59 kg before pregnancy).

The present illness started in the 21st gestational week, when she was diagnosed during a pregnancy checkup with gestational diabetes because of urinary sugar (3+). The condition could later be controlled through diet and urinary sugar (+) was later found only once during a pregnancy checkup in the 39th gestational week. Otherwise the pregnancy proceeded uneventful.

Complaints during the first visit were low back pain and shoulder stiffness. The fetus was in cephalic presentation. There was no chilling, but over a distance of about 8 cm above the ankles a ring-like edematous region was observed. Micturition frequency was once every 30 minutes to 1 hour and about 2-3 times per night. Both the pollakisuria and nocturia developed around the time morning sickness resolved by the 14th gestational week.

Five acupuncture and moxibustion treatments were administered in intervals of approximately 4 weeks. The basic treatment was bilateral moxa-needling of SP6 with 3 cones of moxa and a selection of appropriate acupoints for the complaints made at each visit (Table 1).

The pregnant woman assumed a semi-Fowler position during the acupuncture and moxibustion treatment to prevent the development of supine hypotension syndrome and the moxa-needling treatment was performed in the flexed knees position.

Moreover, we instructed the patient to treat herself with moxibustion daily on the left and right SP6 for 5 minutes each using stick moxa. The patient reported to have performed the self-moxibustion daily.

At the fourth treatment the region around the left and right SP9 was slightly depressed, representing a state of deficiency, so that daily self-moxibustion treatment with stick moxa on the left and right SP9 for 5 minutes each was added.

For the moxa-needling we used 50 mm Seirin L-type needles with a diameter of 0.20 mm and 0.769 g portions of Kamaya moxa for moxa-needling formed into spheres with a diameter of 20 mm, that were then attached to the needle heads and burned. For retaining needles we used J-type Seirin needles with a length of 40 mm and a diameter of 0.16 mm.

The indefinite complaints were evaluated using the entries in a 5-stage, 40-item (Table 2) evaluation indefinite complaints questionnaire with numbers from 0 to 4 made by the patient herself before each acupuncture and moxibustion treatment.

The course showed that following the first visit the nocturia improved and the pollakisuria improved to achieve micturition intervals of 2 hours. After that the pollakisuria and nocturia did not recur during the pregnancy until delivery (see Figures 1-3).

Delivery was a natural childbirth and although there was copious bleeding during delivery, no iron medication was used and the patient was not unwell.

[Patient No. 2]

16-year old woman, primipara, senior high school student.

Chief complaint was correction of breech presentation. The gestational age at the first visit was 29 weeks and 3 days. Height was 153 cm, weight was 59 kg (weight increased by 7 kg from the 52 kg before pregnancy). The pregnancy had proceeded in breech presentation since the 25th gestational week. The pregnancy was otherwise uneventful.

During the first visit, chilling of the feet and edematous over a distance of about 7-8 cm above the ankles in a ring-like region were observed. Micturition frequency was once every hour and on 3-4 nights per week about 1-2 times per night. Treatment frequency until correction of the breech presentation was twice a week and after that once a week.

During the first visit, left and right SP6 were treated with moxa-needling and direct moxibustion with half-rice grain sized cones on BL67 for the

correction of the breech presentation. Before the second treatment abdominal palpation showed a cephalic presentation of the fetus, but because the patient requested continued acupuncture and moxibustion treatment until delivery for the sake of physical conditioning, a basic treatment of bilateral moxa-needling at SP6 with 3 cones of moxa and needles retained in a selection of appropriate acupoints for the complaints at that particular visit (see Table 3) was administered.

The same types of needles and moxa as used for patient No. 1 were employed and for the direct moxibustion the Yamasho moxa "Nippon Ichi Ogonzan" was used.

The indefinite complaints were evaluated like for patient No.1 during each treatment.

The course showed that micturition intervals had lengthened to 2-3 hours and rising during the night for micturition occurred only once during the 3-day period from the first to the second treatment. From the second treatment the course preceded without pollakisuria and nocturia (see Figures 1-3).

Delivery was a natural childbirth and the postpartum course was uneventful.

[Discussion]

During the individual stages of pregnancy various indefinite complaints may develop in pregnant women and tend to change in conjunction with alterations in physical condition. Common self-care of indefinite complaints include aerobics, swimming, yoga and similar exercises, while belts are used for splinting the pelvis in case of low back pain¹⁾.

Both pollakisuria and nocturia are classified as indefinite complaints and according to Shimada et al.³⁾ report, pollakisuria and nocturia are ranked top among indefinite complaints developing during the first and second trimester, while ranking top during late gestation with an incidence of 95.4%. Thus, almost all pregnant women experience pollakisuria

and nocturia (see Table 4). That report, however, does not mention nocturia.

Regarding the reason for the easy development of pollakisuria is considered to be that the "enlarging uterus among the physical changes during pregnancy presses on the bladder and flattens it in anteroposterior direction. That is why a micturition desire occurs so easily." ⁴⁾ Also, regarding kidney function⁴⁾ "the glomerular filtration and blood plasma flow increase during pregnancy, so that the glomerular filtration reaches by the 16th gestational week a peak that is about 1.5 times higher than in the non-pregnant state, subsequently maintaining this high value until late gestation. The kidney blood plasma flow reaches a peak by the 15-16th week too, but there is no agreement among reporters, since some reports describe a decrease towards late gestation, while other reports state the level is maintained."

Incidentally, Hirose⁵⁾ noted regarding the correlation between pollakisuria and sleep disorders in the various pregnancy periods that "the frequency of nocturnal urination had markedly increased in patients with sleep disorders during the first, second and third trimester of the pregnancy. (omission) Nocturia is a conceivable cause for sleep maintenance disorders." Sleep disorders during late gestation may cause accumulation of fatigue and could thereby possibly influence delivery. Regarding fatigue during gestational periods Yano⁶⁾ pointed out, that this fatigue might be a non-obstetrical etiologic factor for uterine inertia. Moreover, uterine inertia may easily develop into protracted labor and invasive measures at the time of delivery could affect the puerperal period. Thus, pollakisuria and nocturia during pregnancy may affect the QOL during pregnancy and the delivery, therefore representing important symptoms for the expecting mothers that should be alleviated.

On the other hand, there seem to be no reports about the effectiveness of acupuncture and

moxibustion treatment for pollakisuria and nocturia in pregnant women, but among the reports about lower urinary tract disorders, Tomita et al.⁷⁾ noted that "according to RTCs warming moxibustion treatment for nocturia led to a significantly decreased number of nocturnal micturitions." Again, the mechanisms behind the marked effectiveness of the acupuncture and moxibustion treatment are not clear, but careful inspection of the abdomen of the pregnant woman after an acupuncture and moxibustion treatment shows marked changes (Figure 4-1, Figure 4-2). The entire abdomen seems to be becoming firmer, the position of the protruding uterus comes to lie higher and the bulge above the inguinal and suprapubic regions decreases. These findings suggest that acupuncture and moxibustion treatment exerts some influence that is mediated via the autonomous nervous system, causing changes in the position of the uterus and bladder, leading to variations in the bladder capacity, surmised to cause the alleviation of the pollakisuria.

Collecting data pertaining to improvements of pollakisuria and nocturia in pregnant women through acupuncture and moxibustion treatment represents a task for the future. The clarification of changes in uterine position and size as well as bladder capacity before and after acupuncture and moxibustion treatment represents yet another task.

[Conclusions]

The results indicated that acupuncture and moxibustion treatment is effective for pollakisuria and nocturia in pregnant women.

《References》

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