

## Pregnancy, Drug-Abuse and Acupuncture

### Experiences with the NADA Protocol on pregnant women

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#### **In Germany live about 80 million people.**

**About eight million women** between 18 and 40 years live in Germany and are smokers (and about 12 million men). If they get a baby and continue smoking they possibly damage the health of their children. For a long time these risks were underestimated also by doctors. And about 70 thousand women in the age between 18 and 40 are addicted to illegal drugs: In comparison a smaller group; but they usually continue drug-abuse and lifestyle during a pregnancy, harm their children and often they lose them when they are not able to give necessary physical and social care.

Heroin-, Crack- or Methadonusing pregnant women usually are also smokers and use often other substances, f.e. Benzodiazepin-Medication

Three problems are adverse for a professional support:

1. that these women (or parents) don't trust themselves and think that they always will fail,
2. that doctors, midwives or counsellors don't trust in their competence and ability to support
3. that there is not an effective supporting and controlling network which works together.

#### **Pregnant women who smoke or use drugs or alcohol need competent and clever counseling, tough, friendly and effective treatment and not criticism.**

And they need a friendly and supporting but also controlling authority. For the principle of a professional support I learnt from Dr. Smith and the Lincoln Recovery Center Team the word "tough love".

Most pregnant women ask for support of midwives or obstetricians if these professionals have an acceptable concept. After 20 years experience I see that the integration of acupuncture was a good step and an intelligent access for a very complex problem. There exists not a single or simply solution.

#### **Special risks of drug use and smoking in pregnancy**

Tobacco substances, alcohol, heroin, methadone, buprenorphin, cocaine, crack-cocaine, amphetamines, benzodiazepins, all substances harm the mother's health and pass from mother to the fetus via placenta. There is no barrier to the fetal brain and its other organs.

Babies of drug-using and also of smoking women have higher rates of:

- miscarriage
- premature labour (immature child with all risks f.e. brain damage)
- Intrauterine growth retardation (risk f.e. lung- and brain damage)
- Amnion infection syndrome (risk for all organs)
- Intrauterine death
- Abruptio of placenta (caesarean in emergency necessary: risk for both mother and child)
- Teratogenic effects? (f.e. brain damage, clefts)
- Are sure for alcohol and smoking
- Are not related to opiate- or methadone use, but
- Are maybe connected with Crack
- Neonatal Abstinence Syndrome (NAS)

- SIDS (Sudden Infant Death Syndrome)
- AD(H)S (Attention Deficit (Hyperactivity) Disorder)
- Often adverse effects are not recognized in newborns, only appear years later, f.e. ADHS.

## Treatment

60 % of smoking women quit smoking spontaneously when they get pregnant. 40 % continue smoking.

Smoking pregnant women need support with a straight, intelligent concept. Their wish to quit is often inconsistent. If we ask or talk with them we hear that the most know about risks. Motivational interviewing technique is a good non-confrontational way to stay in contact.

But it is good to have more than one tool for treatment. And the first should be not a nicotine replacement and not a medication. Acupuncture in general is well accepted by most patients. But they heard about acupuncture that it is expensive and not available.

Here is the concept of the NADA Protocol with a repeated, acceptable non-verbal treatment helpful. We use the same procedure as for drug-addicted women.

One aspect of our clinic from 1987 up to now is to look after drug-abusing pregnant women. Within 20 years we looked after about 600 drug-abusing pregnant women and their children..

The most of our patients were heroin-dependent or methadonusers and most of them used in addition cocaine, crack-cocaine, benzodiazepins or alcohol and nearly all were smokers.

Pregnancy offers women a unique opportunity for substance abuse detoxification and is a chance to change their risky lifestyle.

We offer treatment, counseling, acupuncture and prenatal care, all tests, ultrasound, psychosocial care, preparation for the delivery and the time after.

We look after these mothers and children, the development of their pregnancies, psycho-social situation, fetal outcome and the years after.

We are a team of three doctors (two women and me). We are Gynecologists and Obstetricians. And there are three nurses. We work together with a facility for psycho-social rehabilitation and counseling, with a perinatal department and a childrens hospital.

Early and frequent prenatal care visits reduce the risks of morbidity, prematurity and low birth weights of the infants.

We try to continue treatment after childbirth for months and sometimes for years. So we see children not only in ultrasound but also later accompanying their mothers.

## Methadone

Heroin-dependence during pregnancy presents some complex medical problems.

It is difficult to detoxify and detoxification may produce fetal distress and premature labor with all consequences of too low birth weight and perinatal death..

Therefore the most western states introduced methadone- or buprenorphin-replacement-medication for pregnant heroin-addicts. Methadone- or buprenorphin-medication is widely available. It can reduce obstetrical and fetal complications related to illegal heroin-use and it

offers a better chance for regular medical prenatal care and a better fetal outcome. But the fetus becomes dependent on medication.

From 1987 to 1994 we used only methadone in pregnancy to reduce harm in women using “street-heroin”, cocaine, crack etc.

The prevailing opinion was that the benefits of the opioid-medication outweigh the risks not only to the pregnant women but also to the fetus. A detoxification of heroin or methadone during pregnancy was mostly not recommended even if the mother was motivated to withdraw.

In methadone-medicated mothers 80% of the newborns – more than after heroin-abuse – suffer from Neonatal Abstinence Syndrome (NAS).

If you saw or heard the babies with NAS you mentioned that’s a high price for the therapy.

### **Neonatal Abstinence Syndrome (NAS)**

#### 1. Symptoms of Central Nervous System

Tremors, hyperreflexia, irritability, high pitched cry, increased muscle tonus, general convulsions

#### 2. Autonomic system dysfunction

Yawning, sneezing, sweating, fever, fast breathing, increased apnea

#### 3. Digestive system dysfunction

Diarrhea, vomiting, poor feeding

NAS is a severe disease that is treated by a neonatal intensive care unit for two to eight weeks. Such newborns get typically a medication with opiate-medication (paregoric), barbiturates or benzodiazepins in the beginning of their lives.

But the main problem for the babies is that about 50% of drugdependent parents are only inconsistent able to give their children the necessary physical and social care in the months and years after childbirth. Even if they are in methadone-maintenance-medication and are offered psychosocial counseling. A lot of them use continuously crack or benzodiazepin.

### **Acupuncture**

I am an Acupuncturist for many years. But I treated not drugaddicted patients. I was inspired to do that by two patients who had very good experiences with acupuncture detoxification in a hospital. The medical staff of that inpatient facility treated them 3-4 times a day with needles and without any medication. They were trained on the NADA Protocol which was developed in the Lincoln Hospital/Bronx. So we went to both hospitals to see what seemed to be impossible. We noticed that in Bronx also pregnant women were treated, not only heroin- or methadonusers, but also crack- and alcoholusers. We learnt about the NADA-Treatment and started after 1994 with the NADA Protocol in addition or instead of medication and did it also for pregnant smokers in our clinic.

Treatment is available from Monday to Friday, always at noon, in a groupsetting, in a friendly, non-confrontative atmosphere. Counseling and psycho-social care is offered after some treatments when the patients begin to trust.

**NADA Protocol** means

- Acupuncture, 3-5 points, on both ears, 3-5 times a week
- Group treatment, 30-45 min, patients are sitting
- Friendly, non-confrontative, familiar atmosphere
- “Tea treatment” (Detox-Tea), 3- 4 times daily
- Urin testing
- Counseling

**Important to emphasize:**

**Acupuncture for drug-treatment is not a stand-alone therapy.**

**It is connected with psychosocial rehabilitation and can be combined in pregnancy with medication.**

The aims of the treatment are

1. Healthy mothers
2. Healthy newborns and children
3. Parents (mostly mothers) who live together with their children because they are able to care for them.

**Results**

If we compare the first period without acupuncture and the 11 years after 1995 with the Integration of the NADA Protocol we recognize that in general mothers and babies did better:

1. Less complications in pregnancy, f.e. premature labour
2. Better fetal outcome
3. More women reduce or detoxify from methadone, crack and alcohol and benzodiazepine-medication
4. Reduce their cigarette smoking
5. Less Neonatal Abstinence Syndrom
6. No convulsions or cramps in the acupuncture group
7. Better sleep, less pain
8. More compliance for rehabilitation
9. Seem to be in a better mood
10. Had more often a “Thanks for treatment” to the staff

Important: Offering acupuncture we see and treat also women were methadone can not work: alcohol, crack, benzodiazepins, cigarettes, amphetamins.

**Acupuncture and Neonatal Abstinence Syndrom**

This is not a scientific study to show evidence of that medicine. We give a short report about our experiences about women who came to the acupuncture group and the Neonatal Abstinence Syndrom. We looked for 102 drug-abusing pregnant women. They were random selected as they came to us and we offered them all the typical NADA protocol.

And then we compared two groups: The newborns from mothers who got repeated treatment ( group 2) during pregnancy and such who got no or only one treatment (group 1). Both groups of mothers were offered also counselling, psycho-social rehabilitation and typical obstetrical care and consultation, ultrasound and typical tests during pregnancy. 95 delivered in a specialised perinatal department experienced with NAS. From all we get information about the delivery and about the babys.

From 102 women 59 are in group 2 and 43 came not to acupuncture or had only one treatment (group 1).

In group 1: 35 of the 43 newborns suffered on NAS and had to be treated for two to eight weeks (= 81%) due to severe NAS. Only eight infants (=19%) did not need a medication, because the symptoms were weak.

In group 2: 20 babies suffered NAS and need medication (= 34 %) because of severe NAS. But 39 did not need medicine and left the hospital after a week of observation (= 66%).

The results in group 1 were the same like in the years before 1995 when we did not offer acupuncture.

### **Acupuncture to newborns?**

Also at Lincoln Hospital we heard about the possibility to treat newborns with acupuncture-earpoints. So we tried it in the same way when we saw babies with symptoms of NAS. The method is completely undangerous. Magnetic beads are applied to the Shen-Men Points on the outer ear and remain for some days. They are controlled by a nurse and get changed if necessary. This simple therapy has no negative side-effects and is continued as long as there are symptoms.

We saw calming and symptom-reducing effects, often immediately after application. Therefore we trained nurses and doctors from the perinatal center to do it the same way.

### **Does NADA Protocol help pregnant women in smoking cessation ?**

In the last seven years we had more attention on smoking and noticed the same physical risks for children as for other drugs, and we were trusting more in acupuncture.

Here we look after 60 smoking pregnant women who didn't stop smoking up to the 12. week of pregnancy. We offered acupuncture (NADA Protocol) and looked at the results of the two groups: Only one treatment (group 1) or more than one, i.e. 2-16 (group 2).

In group 1 we registered 35 % smoke-free when the baby was born, in group 2 we see 60 %.

We know that our experience here has no scientific evidence. But there are others who showed that NADA Protocol is effective, especially in combination with repeated counseling (Bier et al.).

Drug-dependent pregnant women are very busy. They have to change a lot of things in their lives in a some months, so that the baby has a safe place. And half of them had other children at home.

Many of them did not continue their acupuncture treatment, but they told us that they like the treatment.

That's important, because we saw some of them later asking for acupuncture or choosing a facility which is working with acupuncture.

### **Ideas to improve the treatment:**

- Nurses and midwife should visit the women and young mothers/parents at home, also to give treatment
- Perform NADA treatment groups in gyn/obstet. departments/hospitals and their outpatient departments
- Magnetic beads as a basic therapy for newborns after smoking-, alcohol- and drugexposure.
- Good documentation of symptoms, treatments and effects.

**Acupuncture heals not the addiction –disease,  
but in a suitable setting  
it is an intelligent and acceptable,  
simple and effective tool to detoxify  
and to make damaged women stronger.**

**This kind of a structured therapy.  
could give them what many of them missed:**

**A safe place.**

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