Leonardo Gucciardo and Roegiers, J Yoga Phys Ther 2014, 5:3
DOI: 10.4172/2157-7595.1000205

Journal of Yoga & Physical Therapy
ISSN: 2157-7595

Short Communication Open Access

Zero Tolerance? About Minor Addictions during Pregnancy

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Abstract

The use of licit or illicit substances during pregnancy can potentially produce adverse health effects for the maternal-fetal dyad. There is a consensus about adverse effects related to heavy consumption of potential toxic substances, but opinions about mild abuses remain blurred. Zero tolerance public health policies for alcohol or tobacco consumption during pregnancy are difficult to sustain for caregivers, very often embarrassed by anamnestic findings related to mild addictions. How to get this information, how relevant it is and what to do with that are essential questions to answer. For some of the patients, drug abuse is a compensation for psychological difficulties, for others, the use of illicit substance is directly linked to a psychiatric disorders. These difficulties as well as these disorders require correct identification. Communication about risks related to drug abuse is essential but parallel process including analysis of the emotions behind the substance consumption should be performed.

Keywords: Addiction; Stress; Multidisciplinary; Perinatal; Outcomes

Introduction

Major addictions have been studied within numerous scientific publications. When addiction problems are combined with pregnancy follow-up, patient compliance becomes a crucial issue [1]. Caregivers (midwives, obstetricians) often experience an impression of emergency when such anamnestic information's are mentioned by the patient or the relatives [2]. Regular ingestion of potentially harmful substances requires an accurate assessment of teratogenicity risks for the foetus as well as psychological patient evaluation by addiction experts. Standardized protocols for management of such pregnancies are progressively developed. A coordinated multidisciplinary patient management is the key. Midwives, obstetricians, paediatricians, assisted by addictions expert's social workers are required to insure optimal cares. But less spectacular situations are more frequent. These are the "mild everyday habits" that reduce tension; most often legally authorized toxic substance consumptions, with no excess. Out of a pregnancy these would pose most of the time no problem at all, but when these problematic patient behaviours are identified during the pregnancy, caregivers feel sometimes embarrassed by these little pills, this glass of alcohol, these cigarettes ... especially when the caregivers are personally concerned by such familiar toxic consumption. This article is about that potential discomfort experienced by perinatal teams when they have to manage such pregnant patients. We will discuss how the caregivers try to identify these important anamnestic information's, and thereafter we will continue with how they share these information's and finally, we will end the discussion with what they do with these important anamnestic elements.

Anamnestic identification of toxic consumption

Anamnesis protocols are most of the time, quite rigid, including frontal questions about addiction, addressed to a pregnant patient during her first contact with the caregiver. That does not look as an optimal way to build a reciprocal trust relationship. The transcription of these important information's into the medical record should be careful and efforts should be made to avoid a feeling of distrust about a quite banal anamnestic information (a glass of wine during the supper, a light anxiolytic medication in the evening) or about a less common consumption (smoking pots, or occasional cocaine consumption). A careful transmission is essential. The context of the toxic consumption needs to be detailed as well as the frequency and the doses. The patient medical record requires details about the discussion that happened after the identification of the toxic consumption with the propositions made by the caregivers to start the multidisciplinary management.

For a lot of patients, "mild addictions" are hidden behind a feeling of shame or guiltiness. For others the toxic consumption is completely banalized. These particular patient behaviours increased the difficulty for caregivers to identify such important anamnestic information. It is essential for the patient to feel reassured, treated with respect without any kind of judgement [3]. Patient adhesion to management propositions can be tricky. Drug consumption limitation or drug withdrawal will inevitably be followed by a feeling of reduced comfort for the patient, even if the pregnant patient is motivated by the willing to offer the child to come a better environment. That particular motivation is a key that requires adequate use with parsimony.

Multidisciplinary discussion about patients with mild addiction problems

The process of sharing the information's with colleagues who will be involved in the management, is important to generate a comprehensive prevention and therapeutically contract that will be proposed to the patient. Objectivity is one of the key for drawing the lines of the multidisciplinary patient management. The discussion needs to be based on facts. Identifications of the risks for the patient and the foetus require an accurate analysis of the available scientific literature. It is important to adapt the patient management according to the associated with the toxic consumption. The social network around the patient is also crucial to plan customized management options. Unexpected resources or allies can be found working together with relatives, friends or the general practitioner of the patient. Efforts should be made to

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Received July 09, 2015; **Accepted** July 09, 2015; **Published** July 09, 2015

Citation: Leonardo Gucciardo P, Roegiers L (2015) Zero Tolerance? About Minor Addictions during Pregnancy. J Yoga Phys Ther 5: 205. doi:10.4172/2157-7595.1000205

understand what is behind the toxic consumption: emotions that the patient has to cope with, psychological trauma, feeling of insecurity. The balance between the side-effects of a "mild addiction" and the risks for the patient to experience a psychological decompensating as a potential consequence of drug withdrawal should be very accurate.

Treatment of pregnant patients with "mild addictions"

As already mentioned before, the available scientific literature about the toxic substance that the patient is consuming constitutes the basis on which the management will be elaborated. To make it simple, a zero tolerance general public health policy for toxic consumption during pregnancy has been elaborated. This policy is the result of a process that started in the years fifties when the concept of complete placenta barrier was uniformly spread among the medical experts. The crisis around thalidomide use during the pregnancy changed dramatically caregiver's attitudes regarding drug consumption and pregnant patients. This medication was used to treat nauseas associated with pregnancy. The lack of knowledge about foetal and maternal risks associated with thalidomide treatment resulted in significantly increased incidence of severe foetal malformations diagnosed after birth. That crisis led to major changes in public health policies. Nowadays, most of the drugs are considered as potentially at risk for the foetus. Therefore, the general public health policy is to avoid any medications during the pregnancy and the breastfeeding period. Exceptions are based on scientific material that demonstrates clearly the inocuity of the considered drug. But there is nothing more dangerous than to summarize complex situation as black or white, nuances are essential. Fortunately, the literature about drug and pregnancy is abundant and helps the caregivers to build an objective opinion, first step that will lead to an adequate patient management. It is not possible to discuss risks associated with toxic substances consumption in general because these risks are directly linked to pharmacological properties associated with each substance.

Alcohol: The correlation between alcohol consumption during pregnancy and postnatal development problems during the neonatal period or later is clear. Evidence-based medicine has demonstrated that if a pregnant patient drinks alcohol, the alcohol blood concentration will be balanced between the mother and her foetus [4]. The pregnant patient is able to metabolize and to eliminate alcohol molecules. Metabolization of alcohol molecules will generate acetaldehyde. Both alcohol and acetaldehyde molecules will get into the foetal circulation with no possibility to get out. The fetal metabolism is clearly less efficient than the mother metabolism and that will create an accumulation of these toxic substances in the fetal circulation. This accumulation will interfere with the normal development of all the fetal organs and neuronal differentiation in particular causing different kinds of postnatal symptoms and disorders grouped in the generic clinical entity of Fetal Alcohol Spectrum Disorders (FASD) [5]. The severity of the postnatal symptoms varies according to exposure and gestational age at exposure, dosis of alcohol consumption, frequency of consumption [6]. Most of the scientific publications are considering chronical or severe alcohol consumption. Evidences about moderate or light consumption and risks of foetal malformations or child development disorders are more limited but sufficient to generate public health policies promoting a complete abstinence during pregnancy and breastfeeding.

Tobacco consumption and pregnancy : Smoking tobacco during pregnancy is correlated with increased foetal and maternal risks. Incidences of fetal growth retardation, fetal intra-uterine demise are higher among smoking patients, as well as incidence of abnormal placenta insertion [7]. Smoking tobacco results in ingestion of nicotine molecules and inhalation of carbon monoxide. These substances cause a vasoconstrictive reaction; this is a pathological process that reduces blood volume in the placental and foetal circulations. Smoking pregnant patients are also exposed to increased risk of sudden infant death syndrome, neonatal respiratory distress, necrotizing enterocolitis, development of childhood asthma and nicotine addiction [8]. All these risks have been integrated to generate a pragmatic public health policy that promotes every effort that could help pregnant patients to reach a definitive smoking cessation.

Psychotropic medications: It is important to start this paragraph with a statement: the pregnancy is a period of psychological vulnerability. Therefore each decision to stop or continue a psychotropic treatment during pregnancy should be carefully evaluated. Psychological decompensation if the treatment is interrupted are not uncommon and can result in severe maternal and fetal complications like premature delivery, fetal growth retardation [9,10]. Maternal stress is very often associated with treatment interruption. This maternal psychological effect is objectively correlated with increased cortisol serum levels that play a role in development of mother-child relation disorders, or abnormal child behaviors. Psychotropic medications have been in general, associated with increased risks of fetal malformations. Animal experiments brought some important nuances with reassuring results, especially regarding the use of serotonergic medications very often prescribed as treatment of depression. Mood stabilizers like lithium, valproic acid and carbamazepin are still clearly associated with an increased risk of fetal malformations [11,12]. Pregnant patients treated with anxiolytic or sedative medications should be informed about increased risks for their children, to develop a neonatal abstinence syndrome (NAS) [13]. These newborns will experience a relative sedation phase followed by acute symptoms of neurological irritation associated with respiratory and digestive disorders, consequences of the psychotropic medication withdrawal. There is no clear public health position about psychtropic medications during pregnancy. Guidelines and recommendations are most of the time locally developped by caregivers and based on limited level of scientific evidence.

Ambivalence of patients regarding zero tolerance policies

There is a lack of basic knowledge among patients regarding risks associated with alcohol or tobacco consumption during pregnancy. Mild alcohol consumption during pregnancy is considered by most of the patients as harmless for the foetus [14]. There is a clear cultural influence, in Europe, wine, beer, champagne consumption are in general associated with a social activity, and a positive image. These substances are not considered as toxic. Social representation of tobacco consumption does not benefit from the same positive image, probably because smoking is often considered as an individual activity. The position of the parents about alcohol and smoking is another potential explanation. Indeed, in most of the cases, the position of parents is to ban smoking and rather to tolerate moderate alcohol consumption [15]. Alcohol consumption and smoking are respectively associated with two different levels of harmfulness. Smoking is in general considered as a more addictive habit than alcohol. The same with smoking related diseases, considered as more serious that health complications related to alcohol consumption. This explains and supports ambivalence about zero tolerance policies when consumers and caregivers are surveyed.

Patient's emotions can be perceived as hurdles by inexperienced caregivers when prevention and treatments need to be initiated. The stress of the patient as well as an aggressive behaviour is not easy to manage even for addiction experts. If there is no fight against these emotions, if these emotions are adequately identified, validated by the caregiver, they can be used to develop efficient prevention and effective

treatment. These emotions are potential doors that could create a space where the patient will be able to discuss the cause of the toxic substance consumption: tension on the workplace, conjugal problems, and inadequate stress management. That looks easy, but such patient management requires important skills and development of a reciprocal trust relationship between the patient and the caregiver. This essential step will allow further elaboration of a therapeutically strategy using different tools like group therapy, behavioural approach, motivational interviews, sophrological intervention, meditation techniques, and yoga.

It is important to keep in mind that when caregivers have to deal with addictions problems, the principal goal is not to stop or reduce the consumption but more to reduce associated risks. This is the best way to create an alliance with the patient.

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