

Maternal Use of Cannabis and its Impact on Pregnancy and Child Development

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Abstract

The annual prevalence of cannabis use in Morocco is estimated at 4.2%, the country being a major source of cannabis resin.

Worldwide, this prevalence varies between 9 and 27%.

Assigned to the $\Delta 9$ -tetrahydrocannabinol (THC), the main active molecule responsible for the psychotropic activity of Cannabis, the acute effects and adverse consequences of a regular consumption are well known. Paradoxically, some effects have allowed the use of the plant for a therapeutic purpose.

This survey is a cross-sectional descriptive study of 32 women who use cannabis, which took place at the CHU Ibn Rochd, the social EMAS and Oukacha penitentiary.

In our sample, 69% were aged between 18 and 35 years, representing a young population, with 68.75% of them having a problematic cannabis use and a predominance of polydrug use joining cannabis alcohol and tobacco among 28% of women.

The Anglo-Saxon literature clearly shows the links between alterations in fetal development, behavioral and psychiatric disorders observed in childhood and in utero exposure to cannabis.

In our sample, obstetric and fetal complications were noted including low birth weight among 12.5% of newborns. However, a specific link with cannabis use is hard to establish given the frequency of polydrug use.

A low monitoring of these pregnancies considered "high risk pregnancies" and the lack of awareness of these women contrasts with a significant need for information.

46.88% of women have successfully weaning cannabis, unassisted, pregnancy being an opportunity to influence the path of a woman abusing psychoactive substances.

The care offer at addiction centers located in different kingdom's sites and the opiate substitution program are the pillars of the national strategy adopted by the Ministry of Health to fight against drug use.

Keywords: Cannabis; Pregnancy; Delta-9-Tetrahydrocannabinol; In Utero Exposure

Abbreviations

EMAS: Emergency Medical Assistance Service; FDIU: Fetal Death in Utero; OST: Opioid Substitution Therapy; PAS: Psychoactive Substance; THC: Tetrahydrocannabinol

Introduction

Cannabis was one of the first plants cultivated by humans. Cannabis was used for the treatment of epilepsy, migraines, convulsions, spasms and various headaches. But its inconsistent therapeutic activity, the difficulty in finding optimal doses as well as the appearance of analgesics and synthetic hypnotics lead to its disappearance from most pharmacopoeias in the first half of the 20th century [1]. Morocco is one of the main sources of cannabis resin today. The prevalence of cannabis use in pregnant women remains unknown to this day.

Materials and Methods

The investigation was proceeded at Ibn Rochd University Hospital, at the social EMAS reception center and at the Ain Sebâa penitentiary center (Oukacha).

At the Ibn Rochd University Hospital, the different departments concerned by our investigation are the maternity ward, the infectious diseases department, the psychiatry department and the addictology department during 5 months: from September 2015 to January 2016.

Results

In our study, 16 women were aged between 26 and 35 years old, 44% were single, 50% were active. 72% of women are multiparous. 47% were introduced to cannabis use before the age of 18.

18 women never consulted during their pregnancy, none of the 14 women who had benefited from at least one antenatal consultation was questioned about the consumption of PAS during her pregnancy.

84.38% gave birth vaginally and 59.37% claim to have had a normal course of their pregnancy without incident, 4 out of 30 women declared that their child was not healthy at birth (excluding the two cases of FDIU which were classified as fetal complications).

All successful quit attempts have been unaided.

Discussion

According to studies, it is estimated that marijuana was used in 9 to 27% of pregnant women [2]. In Morocco: More than 95% of drug users are cannabis consumers, this concerns more than 750,000 Moroccans.

50% of women are between 26 and 35 years old. With a large majority single, not having passed primary education, active and multiparous this joi.

The data in the literature confirms that celibacy and unemployment are more frequently associated with the consumption of tobacco and cannabis during pregnancy [3].

In a study of 170 newborns whose mothers were psychoactive substance users, the most frequently found combinations were OST and tobacco, tobacco and cannabis, OST and cannabis [4]. The results of our study match those of the literature with a predominance of

polyconsumption. In our sample, women most often associated cannabis with tobacco and alcohol. Joint consumption promotes initiation and addiction to cannabis [5].

Among women using PAS, pregnancies are mainly poorly monitored because of their late discovery (second or even third trimester) and the fear of women mainly centered on judgment and placement [6]. None of the women who benefited from at least one antenatal consultation were questioned or informed about the consumption of PAS, reflecting the neglect and banalization of the subject by health professionals.

Complete elimination of cannabinoids after a single exposure may take up to 30 days, thus prolonging fetal exposure. Among the complications listed in the literature during pregnancy we find: Implantation failure, spontaneous abortion, premature delivery as well as the potentiation of the effects of anesthetics. Fetal complications are dominated by: the presence of neurobehavioral alterations in the newborn, intrauterine growth retardation, low birth weight and congenital malformations.

In our study 4 newborns had a low birth weight which remains insignificant compared to the literature, in addition, there was only one case of malformation represented by congenital heart disease.

46.88% of female cannabis users successfully quit without resorting to any means of medication or by health professionals. 53.13% tried to stop their cannabis use without success. In general, whatever the substance consumed, the diagnosis of pregnancy is an important factor of change and motivation to stop consumption in many women. A certain number of women who use pre-pregnancy even stop preventively before pregnancy, when it is scheduled [7].

The non-teratogenicity, the prevention of opioid variations and the possibility of breastfeeding make it an indication of choice during pregnancy. This has become a consensus now. This type of substitution program was evaluated very positively in 2011. Consequently, the Moroccan government approved its extension to seven other cities [8].

Conclusion

Cannabis is currently the most widely used drug by women of childbearing age and pregnant women. Obstetric and fetal complications as well as the psychological and behavioral consequences on the child in the medium and long term are worrying. Indeed, there is no specific pharmacological treatment for cannabis withdrawal and most of the time it is to treat a polyaddiction. However, pregnancy remains a privileged moment to start weaning, with significant chances of success. Of course, cannabis is still a taboo subject in our society, in particular among pregnant women, but our role is to go beyond these prohibitions, in order to be able to provide answers and solutions to these women, at most. Early in their pregnancy.

Conflict of Interest

The authors have no conflicts of interest to declare.

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