



Medicinal use of marijuana and its impacts on the respiratory system

Sajedeh Rabipour^{a,*}, Maryam Afsharkhas^a, Evan Abdulkareem Mahmood^b

^aDepartment of Medicine, Iran University of medical science, Tehran, Iran

^bMedical Laboratory Sciences Department, College of Health Sciences, University of Human Development, Sulaymaniyah, Iraq

ARTICLE INFO

Article history:

Received 15 May 2022

Received in revised form 29 June 2022

Accepted 08 July 2022

Available online 10 July 2022

Keywords:

Marijuana, cannabis, medicinal effects, recreational use, adverse respiratory effects

ABSTRACT

There has been an increase in marijuana use in Iran in recent years, especially among young people and adolescents, and there is a general belief that its use does not pose greater risks. In the current debate on legalizing marijuana, it is necessary to distinguish between medicinal and recreational use. There are few indications for its medicinal use approved by international health organizations, all based on synthetic derivatives for oral administration, and countless other indications based on studies with severe methodological shortcomings. Additionally to the widely known deleterious psychosocial effects of marijuana, recreational usage is associated with chronic respiratory symptoms, local inflammation, and immunomodulatory effects on the respiratory system. The duration and amount of exposure have been linked to adverse health effects. COPD, lung cancer, and lung function are negative. Marijuana consumption should not be recommended for recreational purposes without any restrictions since it may negatively affect personal and public health in the future.

1. Introduction

Cannabis sativa, cultivated and produced in practically every country in the world, is today the most widely used illicit drug in the world. It is estimated that 180.6 million people in the world used marijuana during 2011, which is equivalent to 3.9% of the total adult population between 15-64 years[1]. In Iran, the Eleventh National Study of Drugs in the General Population showed, between 2012 and 2014, an increase in the prevalence of annual marijuana use (from 7.1 in 2012 to 11.3 in 2014, regardless of age, sex and socioeconomic level), a significant increase in the incidence rate in young people (from 2.7% to 7.5%) and adolescents (3.3% to 5.5%) and a significant increase in the prevalence of problematic use of marijuana (1.8% to 2.5%)[2].

It has been considered an "illicit" substance since 1970, when it was classified as a type I drug, that is, belonging to the group of drugs, substances or chemicals without accepted medical use and with a high potential risk of abuse[3]. Although this classification is still maintained today, there seems to be an increasing perception in the general population that marijuana use does not entail any

harm to health[2,4], so its access should not be regulated, much less prohibited[5]. This perception could be "contaminated" by the increasingly frequent appearance in the media of this plant's potential beneficial medicinal effects, the growing number of states that have legislated in favor of the medical use of cannabis, and the intense media lobby "for" her. But what is most striking is the legalization of the production and regulated sale for non-medicinal consumption, not only in one country (Uruguay), but also in two US states (Colorado and Washington)[6], without the existence of evidence on the safety of its long-term use.

The medical use of marijuana is intended to treat a disease or relieve symptoms, so a distinction must be made between medicinal use versus recreational use of marijuana, which also implies the necessary distinction between the legalization of use medicinal versus legalization of recreational use.

In this article, the potential medicinal uses of marijuana will be presented, reviewing its probable beneficial and adverse effects derived from its consumption, focusing specifically on the effects of this drug on the respiratory system.

* Corresponding author. Tel.: +989120175701; e-mail: rabipours2020@gmail.com