

Palm Pollen “*Phoenix Dactylifera L*” and Male Infertility

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Abstract

The history of herbal medicine has been known since ancient times; the use of medicinal plants is most widespread throughout the world. The *Phoenix Dactylifera L.* (date palm) is known for its traditional medicinal properties throughout the history of the indigenous population of the Algerian Sahara. Due to its physico-chemical and bioactive components its effect is noted on male infertility. Urogenital inflammation is one of the big problems that cause male infertility. It is known that date palm pollen can improve male infertility through its anti-inflammatory and antioxidant properties. This mini review brings together some of the literature data on the effect of *Phoenix Dactylifera* palm pollen on male infertility.

Keywords: Male infertility; Inflammation; *Phoenix dactylifera*; Anti-inflammatory properties; Antioxidant properties

Introduction

The infertility of the couple has an impact on the quality of their life, which makes it an important public health problem. It can be of female or male origin [1]. Very often, a urogenital history is the major cause of male infertility. Inflammation of the male reproductive system has a negative effect on sperm quality by reducing the concentration and motility of spermatozoa and can also affect the number of spermatozoa with normal morphology [2]. Classically, infectious processes can alter spermatogenesis and lead to the formation of anti-sperm antibodies. Recent publications dealing with the relationship between infection and male fertility insist on the negative influence of infection on sperm at the molecular level, male infertility of inflammatory origin always makes us think of inflammatory sperm, in fact, the germs are deleterious for sperm since they cause sperm necrosis. Based on organic treatments, a very rapid increase tends towards the design of traditional remedies (medicinal plants). Palmer pollen (DPP) is considered an effective organic treatment for male infertility. DPP *Phoenix Dactylifera* is used as a treatment for male infertility, as it allows to positively increase sperm parameters [3], thanks to its various therapeutic properties, the most important of which are anti-inflammatory activity. and antioxidants [4].

Effect of Palm Pollen on Male Infertility of Inflammatory Origin

DPP has been used as the most effective remedy in the treatment of prostatitis in Western European countries for over 40 years. Medical studies and clinical tests have revealed that the direct consumption of these pollen grains induces the regulation of the balance of testosterone because the imbalance of the latter causes infertility and plays a primordial role in the maintenance of spermatogenesis and sperm maturation [5]. In traditional Arabic medicine they discovered from the use of Dokkar as a dietary supplement and a remedy in male infertility as it could improve libido and sperm count and motility through its stimulating and toning effect [6]. *Phoenix Dactylifera* can increase seminiferous tubule diameter and sperm count from LH hormone and FSH hormone which help to increase the number of Leydig cells and subsequently stimulate testosterone production, so DPP has a positive effect

on spermatogenesis [7]. *Phoenix Dactylifera* date palm pollen can act as a fertility agent.

Conclusion

Phoenix Dactylifera date palm pollen is thought to act as a fertility agent. thanks to the therapeutic properties of date palm pollen including antioxidant activity, anti-inflammatory activity, therefore date palm pollen grains are a promising source of natural compounds for the treatment of infertility problems and improvement of sexual behavior.

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