

## Comparison Between Medical And Traditional Treatment In Infertility A Major Breakthrough In The Traditional Treatment Of Asthenozoospermia

Doc.Belkhadem Fatima zahra<sup>1</sup>, Pr. Zahzeh Touria<sup>2</sup>, Pr.Bendahman Malika<sup>3</sup>

<sup>1</sup>Biology Department, Djillali Liabés University, Algeria, Molecular Microbiology, Proteomics, and Health Laboratory

Email ID: [belkhademfati@gmail.com](mailto:belkhademfati@gmail.com)

<sup>2,3</sup>Biology Department, Djillali Liabés University, Algeria

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### ABSTRACT

Around 15% of couples face difficulties conceiving, with a male factor involved in two-thirds of these cases. This constitutes a significant reason to promptly turn to either modern or traditional medicine whilst emphasizing the human aspect of the approach.

Asthenozoospermia, characterized by reduced sperm motility, is among the main contributing factors to male infertility.

During our comparative study, a significant surprise emerged: In some instances, traditional treatment methods surpassed the outcomes of conventional medical treatment for asthenozoospermia within a remarkably short period. This breakthrough raises numerous questions: What are the real implications of this emergence? What does it reveal about the possible complementarity between modern medicine and traditional therapies?

**Keywords:** asthenozoospermia, medical treatment, traditional treatment, male infertility, antioxidants, acupuncture, herbal medicine.

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### 1. INTRODUCTION

Currently, males are increasingly affected. Research in this field is extensive, and today, the male factor is routinely included from the outset in diagnosing a couple's infertility. Patients presenting pathological spermogram/spermocytogram results constitute the basis of our comparative study on male infertility, focusing on a population gathered from consultations in Western and South-Western Algeria. Thus, this exhaustive study compares traditional and medical treatments, incorporating epidemiological aspects and assessing the frequency of sperm anomalies. Consequently, this allows us to orient our etiological research and identify significant risk factors for better therapeutic management.

Indeed, our study allowed us to determine a frequency of pathological spermogram/spermocytogram results of 76.01%, with a predominance of asthenospermia (A). Of the 567 patients consulting, 431 exhibited cytospermiological abnormalities, accounting for 76.01%, whereas the spermogram/spermocytogram results returned normal in 136 cases, representing 23.98%.

Despite the diversity between the two therapeutic approaches (medical and traditional) concerning effectiveness, cost, invasiveness, and accessibility, our study has focused primarily on evaluating the spermatogenic profile (pathological spermogram/spermocytogram) of infertile men and the factors associated with their disturbances.

### 2. METHODOLOGY

We conducted a randomized study from January 2014 to June 2018. The sample comprised 567 infertile couples from five wilayas in northern and southwestern Algeria (Adrar, Oran, Sidi Bel Abbès, Tiaret, and Tlemcen). Among these, 76.01% presented exclusively male-factor infertility, whereas 23.98% had mixed indications.

Data were collected using standardized information forms that included demographic details, risk factors (such as smoking, varicocele, hernia, etc.), and histories of urogenital infections, mainly sexually transmitted infections (STIs). The goal was to achieve a uniform investigation of the studied population.

### Inclusion and Exclusion Criteria

All cases experiencing infertility for more than two years and who agreed to participate in our study were included.

Cases suffering from infertility due to genetic problems, unexplained infertility, or chronic diseases such as diabetes and hypertension were excluded to avoid potential influences of medication on the research outcomes.

### 3. RESULTS

Regarding sperm analysis, spermogram results were abnormal in 81.7% of cases (431/527). Among these patients, asthenospermia (**A**) was identified in 131 cases (30.39%), representing the most frequently observed sperm abnormality (success rate: traditional treatment 50%; medical treatment 86%;  $p=0.00$ ).

We subsequently observed oligo-asthenospermia (**OA**) in 91 patients (21.11%) (success rate: traditional treatment 7.9%; medical treatment 33.3%;  $p=0.10$ ), oligo-astheno-teratospermia (**OAT**) in 77 cases (17.86%) (success rate: traditional treatment 50%; medical treatment 86%;  $p=0.00$ ), and azoospermia (**AZOO**) in 43 cases (9.97%) (success rate: traditional treatment 0.0%; medical treatment 26.3%;  $p=0.016$ ). A biopsy was performed in most azoospermia cases.

Oligospermia (**O**) was recorded in 41 cases (9.51%) (success rate: traditional treatment 79.2%; medical treatment 78.9%;  $p=1.000$ ), including 27 cases of severe oligospermia (**SO**) and 14 cases of moderate oligospermia (**MO**). Asthenoteratospermia (**AT**) was found in 39 cases (9.04%) (success rate: traditional treatment 0.0%; medical treatment 15.8%;  $p=0.106$ ).

Finally, 9 cases (2.08%) presented volume abnormalities (**HPOR group**), comprising 7 cases of hypothermia (**HPO**) and 2 cases of hyperthermia (**HPR**) (success rate: traditional treatment 75.0%; medical treatment 80.0%;  $p=1.000$ ).

#### Analysis of Male Conditions:

##### Traditional Treatment Indicators:

- Total number of cases: 221
- Average success rate: 34.8%
- Most effective treatment: Oligospermia (79.2%)
- Least effective treatment: Azoospermia (0.0%)

##### Medical Treatment Indicators:

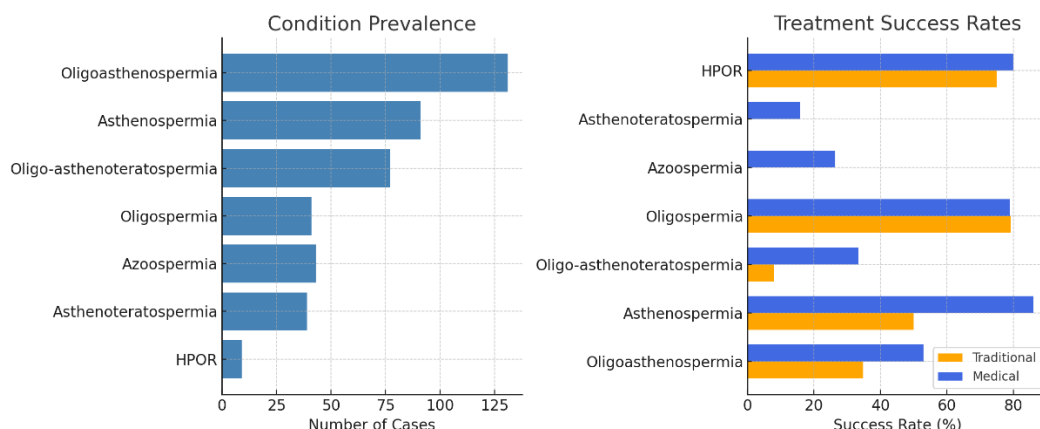
- Total number of cases: 210
- Average success rate: 52.9%
- Most effective treatment: Asthenospermia (86.0%)
- Least effective treatment: Asthenoteratospermia (15.8%)

Male reproductive conditions showed a +24.4% difference in favor of medical treatments.

#### Demographic Impact:

- The **36–45 age group** represented the largest segment of patients.
- **Professional experience** showed a potential correlation with treatment outcomes.

**Figure 1: Treatment Success Rates**



#### 4. DISCUSSION

Upon comparing the data, the results of this study led to a defended thesis that reflects the markedly higher effectiveness of medical treatment, accounting for 208 cases out of 323, i.e., 64.39%, compared to traditional treatment, which accounted for 114 cases out of 270, or 42.22%—a difference of 22.16%.

Interestingly, within the scope of our study, and despite the undeniable success of modern medicine, an exceptional result emerged from the traditional group in the wilaya of Adrar (TIMI). Their so-called miraculous remedy achieved an outstanding outcome, even though 23% of asthenozoospermia cases were severe. In this instance, traditional treatment surpassed medical treatment by 17%, taking the lead.

This "upset" challenges established medical assumptions and highlights the need to deepen research into traditional treatments, often stemming from empirical knowledge passed down through generations. The convergence between traditional and modern medicine should not be seen as a contradiction but rather as an opportunity for mutual enrichment.

The effectiveness observed in specific traditional treatments should be scientifically explored, documented, and—if validated—integrated into a more **holistic and personalized therapeutic approach**. Traditional remedies may be a valuable alternative, particularly in contexts where modern healthcare remains inaccessible.

This **disruption** encourages us to highlight the importance of further examining the merits of traditional therapies and fostering a dialogue with modern medicine, aiming to establish a balanced interaction between the two systems. A well-structured articulation between these populations and their respective practices could prove highly beneficial.

Ultimately, meeting these two systems can only be advantageous: **modern medicine** can benefit from traditional medicine's empirical and time-tested insights, which may be recognized and developed under contemporary scientific methods and technologies. This integration becomes relevant and necessary, especially in regions where modern medical options are neither available nor accessible.

#### 5. STATISTICAL ANALYSIS

The statistical data analysis in the *"Medical Treatment Analysis Report"* used Python software, version 3.11.

Quantitative variables, such as age, were presented as distributions across age groups, along with their respective counts and percentages (e.g., *"Dominant age group: 36–45 years (292 patients, 51.5%)"*). Qualitative variables, including sex, occupation, type of condition (e.g., ovarian cysts, oligoasthenospermia), type of treatment (traditional or medical), and treatment outcome (success), were expressed in terms of frequencies and percentages (e.g., *"Traditional: 10/19 (52.6% success rate)"*).

To compare the effectiveness of traditional and medical treatments for each condition, the statistical significance of observed differences in success rates was assessed by calculating p-values (e.g., *"Oligoasthenospermia: ... Statistical significance:  $p = 0.044$ "*). The interpretation of these p-values determined whether the differences were statistically significant.

The report identified correlations between occupational history and treatment outcomes and patterns of treatment efficacy related to age.

#### 6. CONCLUSION AND PERSPECTIVES

Ultimately, it is important to acknowledge that traditional medicine is significant in the healthcare system due to its modest cost and availability in remote regions, which explains the population's frequent reliance on it.

Our study sheds light on this often-overlooked reality. Traditional medicine can deliver remarkable results in complex clinical conditions such as asthenozoospermia when adequately supervised.

Today, traditional medicine actively contributes to providing basic healthcare through its close presence alongside modern medicine. Modern medicine has become exclusively scientific and technological, often neglecting the human dimension of patient care. This partly explains the rise of traditional medicine, which addresses various unexplained conditions by speaking more to faith than to reason, offering patients a sense of reassurance.

Looking ahead, it would be worthwhile to consolidate this study's findings by expanding the sample size and extending the observation period while employing more advanced techniques and analytical methods. This would allow for the emergence of further insights and deliver more compelling results regarding the potential convergence of these two medical systems.