

health
technology
assessment



EXECUTIVE
SUMMARY

OZONE
THERAPY

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MINISTRY OF HEALTH
MOH/PAK/110.06(TR)

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INTRODUCTION

Ozone (O₃) is a controversial gas because, owing to its potent oxidant properties, it exerts damaging effects on the respiratory tract and yet it has been used for decades as a therapy. The disinfectant activity of O₃ is widely used however the use of ozone in medical therapy is still controversial.

Presently there are nine methods of ozone therapy in medical practice namely direct intra-arterial and intravenous application, rectal insufflations, intramuscular injections, major and minor autohemotherapy, ozonated water, intra-articular injection, ozone bagging, ozonated oil and inhalation of ozone.

OBJECTIVES

To assess the safety and effectiveness of ozone therapy in clinical care.

RESULTS

Safety

There are some case reports of the use of ozone resulting in air embolism, blood borne infections and bilateral visual field loss after receiving ozone therapy.

Effectiveness

(i) **HIV and other infectious diseases**

There is only anecdotal evidence to support the effectiveness of ozone therapy in the treatment of HIV or other blood borne infectious diseases. The current evidence is insufficient to recommend the use of ozone in the treatment of HIV infected patients.

(ii) **Ischemia**

There is insufficient evidence showing the benefits of ozone in the treatment of limb ischemia, stroke and ischemic heart disease.

(iii) **Ophthalmology**

There was temporary improvement in three studies that patients had retinitis pigmentosa who were treated with ozone therapy.

(iv) **Ortholaryngology**

There is insufficient evidence to recommend ozone therapy in the treatment of ENT conditions.

(v) **Obstetric and Gynaecology**

The evidence showing the effectiveness of ozone therapy treatment in reducing the infection rate in caesarian section are observational studies only.

Similarly, there is insufficient evidence to recommend the use of ozone in the treatment of puerperal diseases.

The evidence is only anecdotal in nature as with regards to the use of ozone in the treatment of primary infertility.

(vi) Orthopedic Disorders

There are only three relevant clinical trials on these subjects, thus making it difficult to draw conclusive results.

(vii) Cancer

There is insufficient evidence with regards to the effectiveness and safety of ozone therapy in cancer patients.

(viii) Skin disorders

The evidence is only anecdotal in nature as with regards to the use of ozone in the treatment of skin conditions.

CONCLUSIONS

Current data on the usage of ozone therapy as therapeutic options for various health conditions lacks sufficient safety and therapeutic advantage over available conventional therapeutic modalities.

RECOMMENDATIONS

There is insufficient evidence to recommend the use of ozone therapy as a form of alternative treatment in patients with haematological disorders, autoimmune diseases, ischaemia, eye conditions, ENT, obstetric and gynaecology, orthopaedic conditions, cancer and skin disorders.