

Vitamin D Deficiency Rickets: Optimization of the Vitamin D Regimen in Relation to the Genetic Makeup

Thesis

*Submitted For Partial Fulfillment of MD Degree
in Pediatrics*

By

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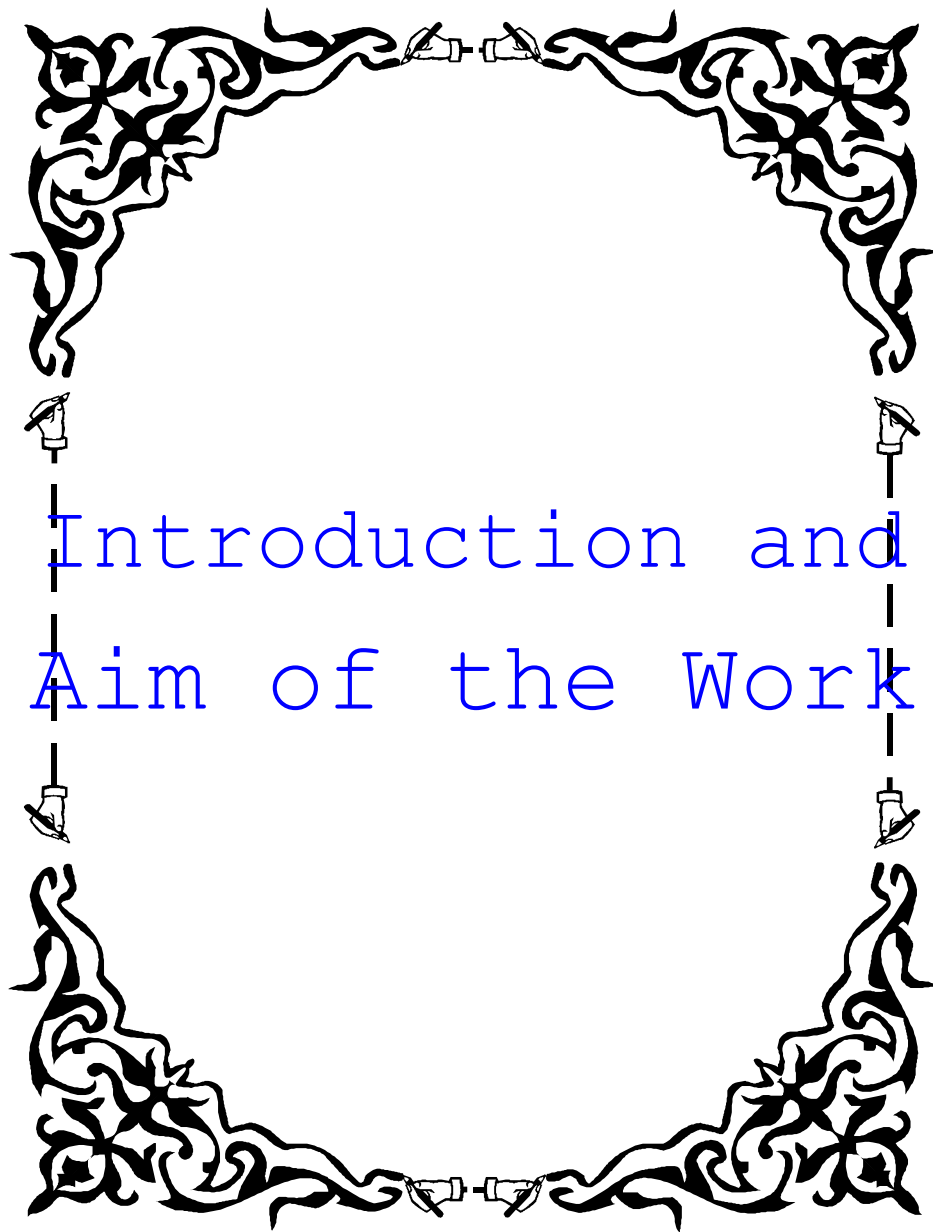
2007

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(رَبِّ أَوْزِعْنِي أَنْ أَشْكُرَ نِعْمَتَكَ الَّتِي أَنْعَمْتَ عَلَيَّ
وَعَلَى وَالِدَيَّ وَأَنْ أَعْمَلَ صَالِحاً تَرْضَاهُ وَأَدْخِلْنِي
بِرَحْمَتِكَ فِي عِبَادِكَ الصَّالِحِينَ)

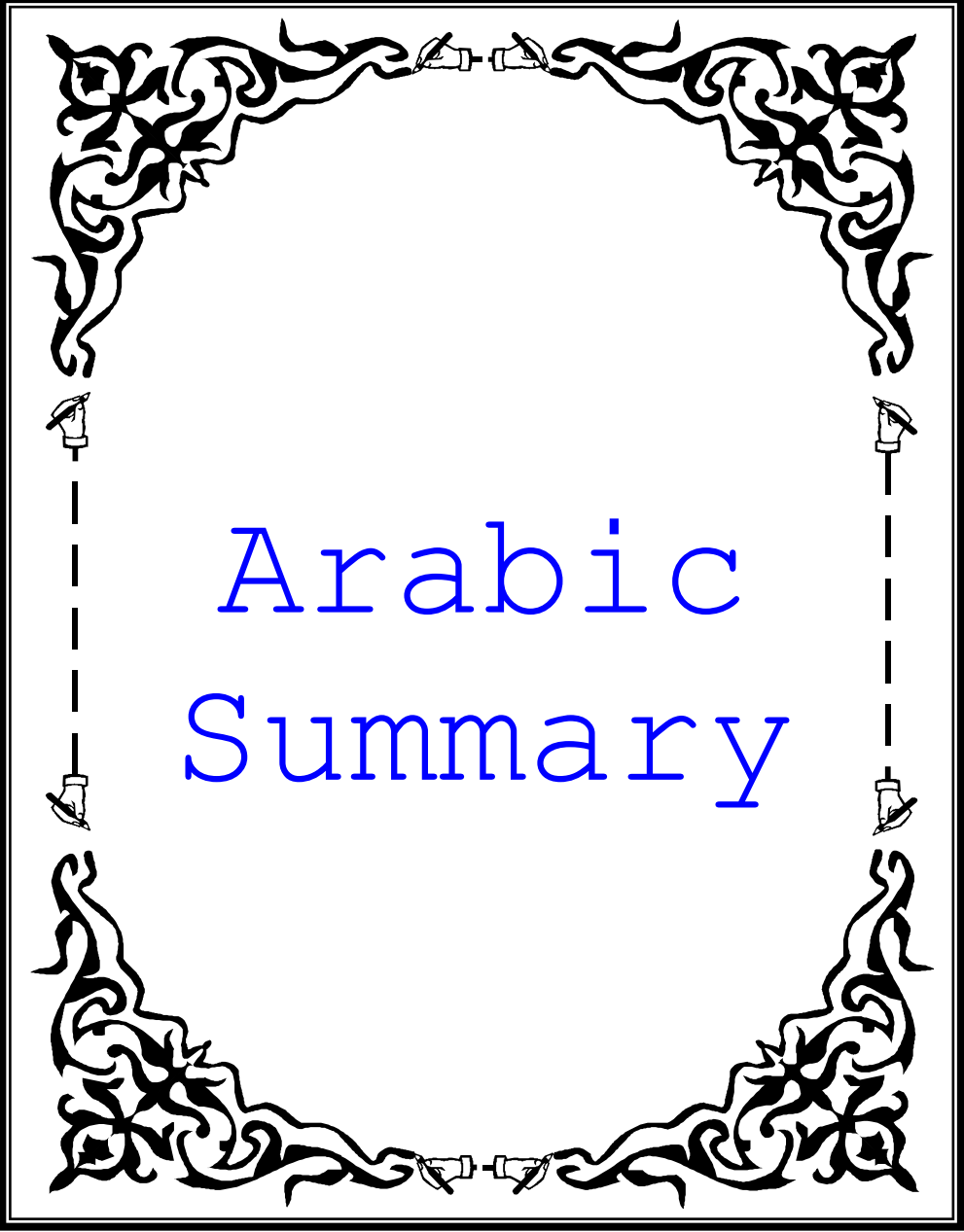
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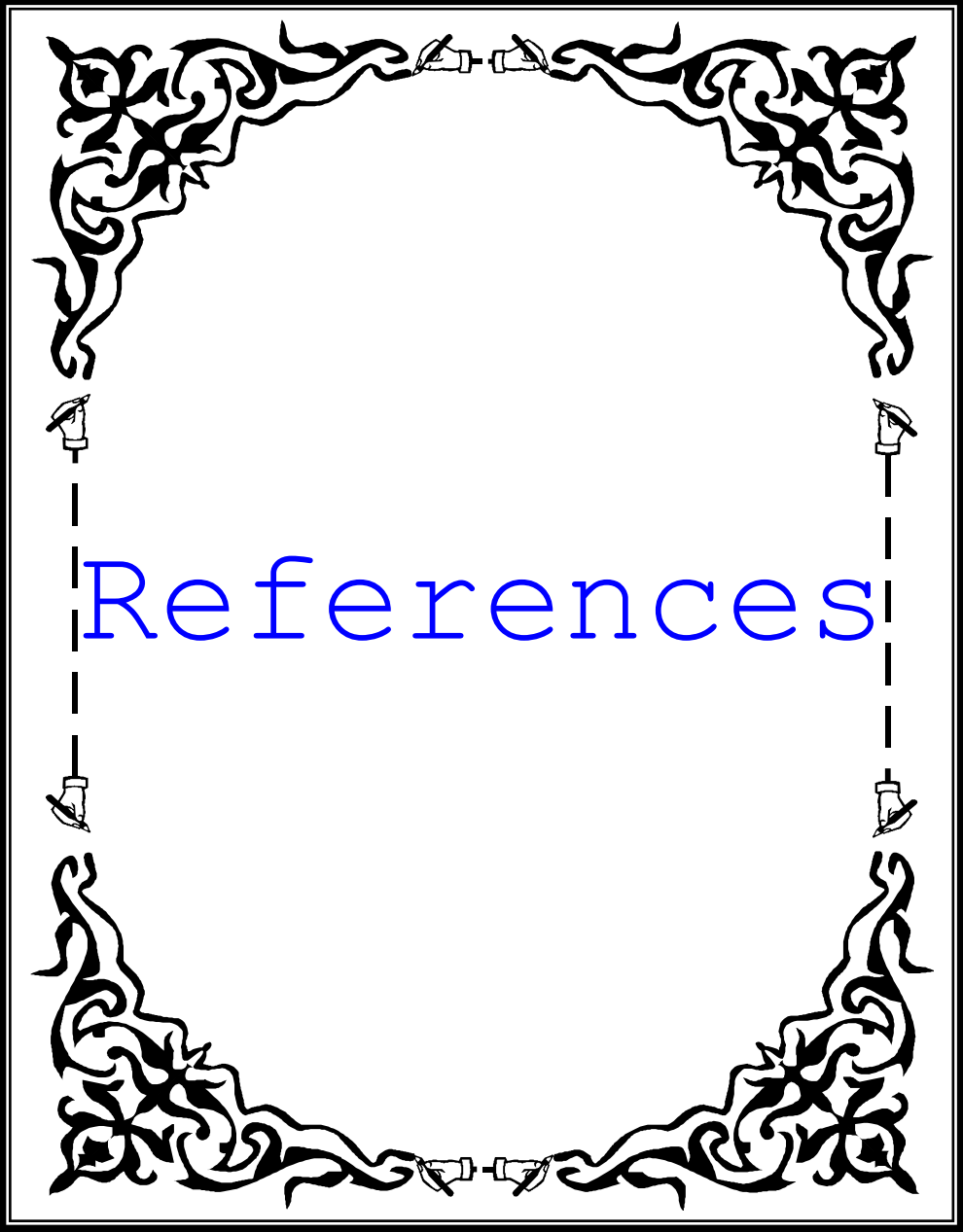


Introduction and
Aim of the Work

Review of
Literature



Arabic Summary

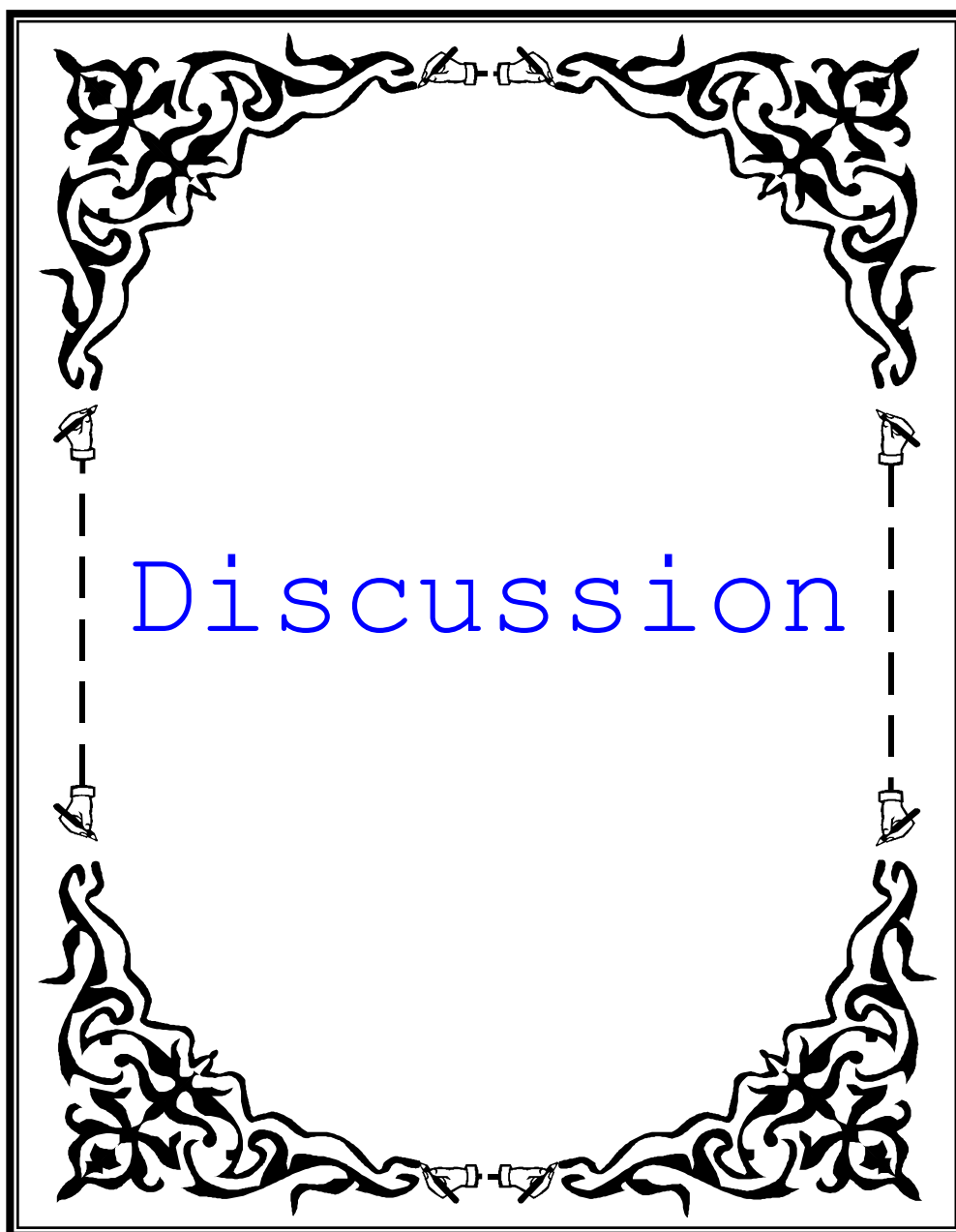


References

Patients and
Methods



Results





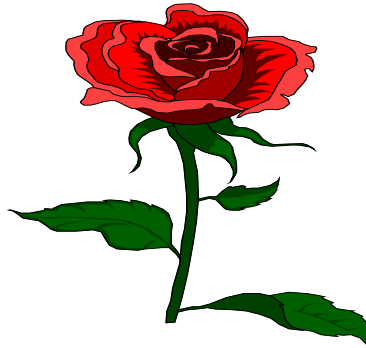
Summary

&

Conclusion

Dedication

I dedicate this work with
love to my mother, my
father and my husband



husband.



Recommendations

INTRODUCTION

Despite a shining sun all through the year and the dramatic decline in its prevalence in many developed countries, rickets is still prevalent in Egypt (*Awwaad et al., 1975*).

Vitamin D deficiency is widely assumed to be the primary cause of this disorder. Inadequate vitamin D acquisition through either poor dietary intake or limited sunlight exposure leads to depletion of vitamin D stores (*DeLucia et al., 2003*).

On the other hand, relative resistance to vitamin D was suggested by an Egyptian study, demonstrating a need for 600,000 IU of vitamin D, repeated for three - four times, every three weeks to cure rickets (*Essawy et al., 1992*).

Vitamin D deficiency has again become an epidemic in children, and rickets has become a global health issue (*Holick, 2006*).

AIM OF THE WORK

This study aims at:

1. Optimizing the dose of vitamin D for a rapid healing of the biochemical and radiological rachitic bone disease.
2. Evaluation of the role of VDR polymorphisms in modifying the severity of rickets and in determining the response to therapy.
3. Elucidating the role of calcium deficiency as a cause of rickets in Egyptian children.
4. Evaluation of the role of calcium as a therapeutic approach for this form of rickets.