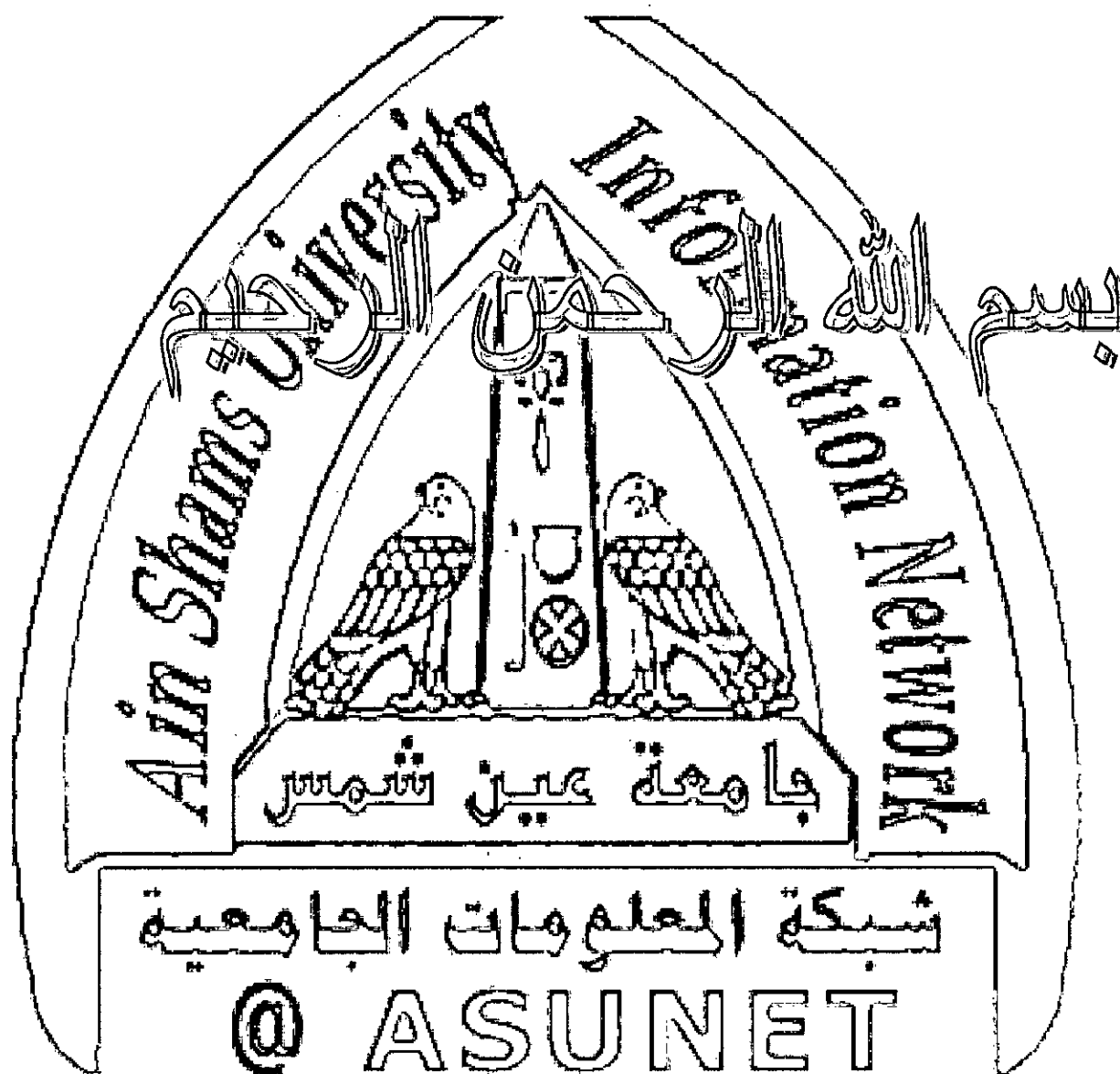




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جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

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15-25- c and relative humidity 20-40%



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URINARY NITRITE PLUS NITRATE EXCRETION IN CHILDREN WITH IDIOPATHIC NEPHROTIC SYNDROME

Thesis

**Submitted for partial fulfilment of Master Degree
In CLINICAL PATHOLOGY**

By

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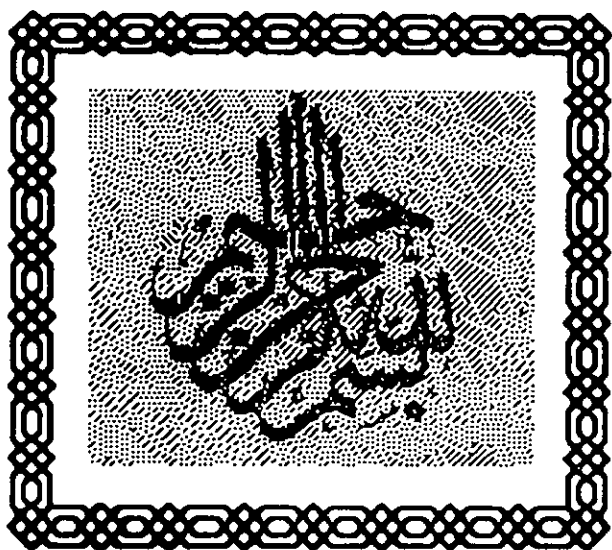
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INTRODUCTION

In 1980, Furchgott and Zawadzki demonstrated that vascular endothelial cells released a highly unstable vasodilator substance which they named endothelium-derived relaxing factor. Many other endogenous vasoactive substances were found to act through the release of endothelium-derived relaxing factor and to elicit endothelium-dependent vasodilatation (Furchgott and Zawadzki, 1980). Endothelium-derived relaxing factor was later identified as nitric oxide (NO) and subsequently shown to be generated from L-arginine (Palmer et al., 1987).

INTRODUCTION

NO is synthesized from L-arginine by the enzyme nitric oxide synthase (NOS). three isoforms of NOS have been identified and there may be subdivided into constitutive NOS or inducible NOS

NO is a labile compound that rapidly decomposes to nitrite and nitrate which are stable end-products in biological fluids.

Recent evidence suggest that NO contributes to glomerular injury in experimental models of animal (Kettner et al., 1995). For example, in rats with acute glomerulonephritis, glomerulonephritis induced by an anti-glomerular basement membrane antibody, inhibition of NO synthase in glomerular endothelial cells and diminished mesangial matrix expansion (Kettner et al., 1995). In contrast, administration of L-arginine to glomerular endothelial cells and macrophages in glomerular disease, attenuated glomerular injury and analog of minimal change disease syndrome (Kettner et al., 1995).

AIM OF THE WORK

The aim of this work is to answer the following questions:

1. If urinary nitrite/nitrate excretion altered in childhood nephrotic syndrome.
2. Can urinary nitrite and nitrate excretion be used as a laboratory test to discriminate among various histopathologic causes of nephrotic syndrome in children?
3. Has NO a role in modulation of proteinuria in nephrotic syndrome?

*REVIEW OF
LITERATURE*

