



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



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# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

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**MONA MAGHRABY**



# **Gonadal Veins Embolization For The Management Of Pelvic Varices In Females.**

*Thesis*

*Submitted in Partial Fulfillment of the M.Sc. Degree in  
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## رسالة توطئة للحصول علي درجة الماجستير في الاشعة التشخيصية

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# List of Abbreviations

Abb.	Full term
<i>AVFs</i>	<i>arteriovenous fistulas</i>
<i>AVMs</i>	<i>Arteriovenous malformations</i>
<i>CE</i>	<i>Contrast-enhanced</i>
<i>CIN</i>	<i>Contrast-induced nephropathy</i>
<i>CP</i>	<i>Clitoris leak point</i>
<i>CPP</i>	<i>Chronic pelvic pain</i>
<i>DAP</i>	<i>Dose area product</i>
<i>FDA</i>	<i>Food and Drug Administration</i>
<i>GnRH</i>	<i>Gonadotropin-releasing hormone (</i>
<i>IGP</i>	<i>inferior gluteal point</i>
<i>IIV</i>	<i>internal iliac vein</i>
<i>IJV</i>	<i>Internal jugular vein</i>
<i>IP</i>	<i>Inguinal point</i>
<i>IVC</i>	<i>Inferior vena cava</i>
<i>mA</i>	<i>Milliamperage</i>
<i>MMPs</i>	<i>Matrix metalloproteinases</i>
<i>MPA</i>	<i>Medroxyprogesterone acetate</i>
<i>MPR</i>	<i>Multiplanar reformatted</i>
<i>MRA</i>	<i>Magnetic resonance angiography</i>
<i>MRV</i>	<i>Magnetic resonance venography</i>
<i>n-BCA</i>	<i>N-butyl-2-cyanoacrylate</i>
<i>OP</i>	<i>Obturator point</i>
<i>PCS</i>	<i>Pelvic congestion syndrome</i>
<i>PM</i>	<i>Piriformis muscle</i>

## List of Abbreviations (*cont....*)

Abb.	Full term
<i>PP</i> .....	<i>Perineal point</i>
<i>PVI</i> .....	<i>Pelvic venous insufficiency</i>
<i>SFJ</i> .....	<i>Sapheno-femoral junction</i>
<i>SGP</i> .....	<i>Superior gluteal point</i>
<i>SN</i> .....	<i>Sciatic nerve</i>
<i>SV</i> .....	<i>Sciatic vein</i>
<i>TIMPs</i> .....	<i>Matrix metalloproteinases inhibitors</i>
<i>VAS</i> .....	<i>Visual analogue scale</i>

## INTRODUCTION

**C**hronic pelvic pain (CPP) is defined as chronic non-cyclical pelvic pain affecting mainly females at the childbearing period persistent for more than 6 months, CPP has many etiological factors, yet may be associated with pelvic and valvar varices in some females and defined as pelvic congestion syndrome (PCS). Due to abnormal retrograde flow of blood in the gonadal and internal iliac vein (*Venbrux et al. 2002; Koo & Fan, 2014*).

Trans catheter ovarian vein embolization recently considered the first line in management of PCS, different embolic materials have been reported to be used in the trans-catheter embolization of ovarian vein including coils, or sclerotherapy by sodium tetradecyl sulphate or Polydecanol and can be injected either before coiling or by using the sandwich technique (*Ahmed & Elbasiouny, 2015*). Other agents include N2-butyl cyanoacrylate (*Marcelin et al. 2017*).

The embolization is done through right jugular approach with 6F vascular sheath, 5F Cobra head catheter, hydrophilic (0.035) j tip guide wire, embolic agent (vascular coils, acrylic glue, sclerosant foam or combination of them) (*Marcelin et al. 2017*).