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Short Communication

Pelvic congestion syndrome – Diagnosis and treatment

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ABSTRACT

Pelvic Congestion Syndrome is a cause of chronic pelvic pain in 30-40% of young women. This is a complex problem due to ovarian vein reflux and may be associated with reflux in the internal iliac vein tributaries causing pudendal varicosities. Effective treatment for this condition involves a multi disciplinary approach including gynaecologist, vascular surgeon and interventional radiologist supported by appropriate investigations. Investigations may include Ultrasound examination, Transvaginal Ultrasound, CT venogram, MRI venogram and Pelvic Venography. Successful treatment of this condition may involve embolisation of ovarian veins, internal iliac vein tributaries, foam sclerotherapy, and relief of mechanical obstruction to the iliac vein, retroaortic renal vein and nutcracker syndrome. Majority of women (85%) find improvement in their symptoms within 2 weeks of the treatment procedure.

1. Introduction

Pelvic congestion syndrome (PCS) is also known as Ovarian Vein Reflux (Fig. 1). It is a cause of chronic pelvic pain in 13–40% of young women. Chronic pelvic pain in the lower abdomen is present for >6 months and accounts for 15% of outpatient gynaecological visit. Thirty percent of patients with chronic pelvic pain have PCS as a sole cause of their pain and an additional 15% have PCS along with another pelvic pathology. The patients complain of a dragging sensation or pain in the pelvis with feeling of fullness in the legs. The pain is worse during pregnancy and during or after sexual intercourse. Pain is often relieved on lying down. Often patients complain of worsening of stress incompetence and may be associated with irritable bowel syndrome. Many of these patients have pudendal varicosities and this is often the cause for recurrence of varicose veins despite standard varicose vein surgery. It is also associated with visible varicose veins around the vulva, vagina and buttock. These veins may become prominent during menstrual cycle and during pregnancy. The risk factors include two or more pregnancies, hormonal imbalance and polycystic ovaries. Ovarian vein dilatation and incompetence may result from May Thurner syndrome, nutcracker syndrome or due to retroiliac renal vein. The patients usually present to their gynaecologist or to a vascular surgeon. The diagnosis is often missed because women lie down for a pelvic exam, relieving pressure from the ovarian veins, and as a result, the veins no longer bulge as they do while a woman is standing. The condition is often

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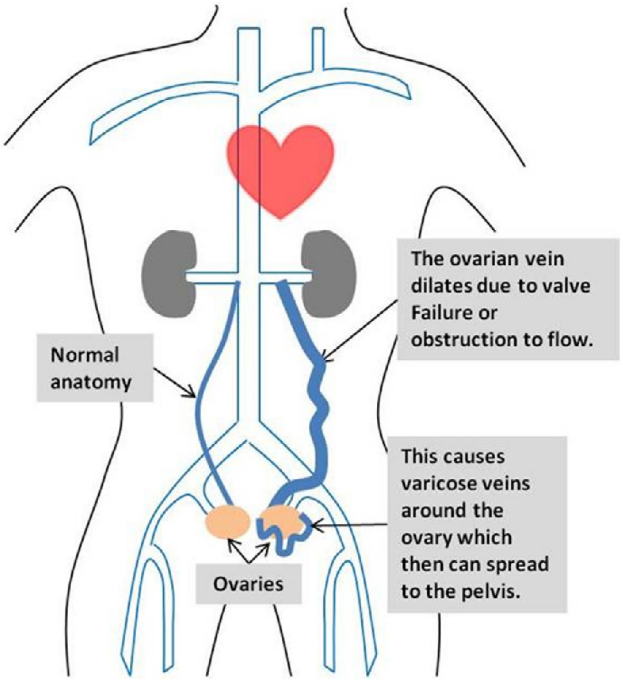

Fig. 1 – Dilated veins around ovary due to valve failure or obstruction to flow (C) spread of the varicose veins down the medial aspect of the inner thigh.

undiagnosed for several years because of lack of awareness. The aim of this presentation is to raise the awareness and to update clinicians about accurate diagnosis and treatment of this condition.

2. Investigations

After a thorough clinical examination, the clinician may arrange the following investigations for an accurate diagnosis.

2.1. *Ultrasound examination*

The ovarian vein may be dilated >5–6 mm (positive predictive value of 71–83%), and may show multiple dilated veins in the adnexae with reversed venous flow on colour Doppler, especially, after Valsalva manoeuvre.

2.2. *Transvaginal ultrasound*

The technique is helpful to exclude other pelvic pathology.

2.3. *CT venogram and MRI venogram*

Contrast-enhanced CT or MRI scan typically may show dilated pelvic and ovarian veins.

2.4. *Pelvic venography*

This is considered to be very accurate in the diagnosis of ovarian vein incompetence and communication with internal iliac systems draining the pudendal varicosities. This also helps in treatment planning.

3. Treatment

The treatment involves a multidisciplinary approach involving the gynaecologist, vascular surgeons and interventional radiologists. The treatment needs to be properly planned together with the interventional radiologist and may involve,

1. Embolisation of ovarian vein using coil, glue or sclerosant (Figs. 2 and 3)
2. There may be the need for embolising the ovarian veins on both sides, as well as the tributaries of the internal iliac veins draining the pudendal veins
3. Foam Sclerotherapy
4. Treatment for May Thurner syndrome by stenting of common iliac vein

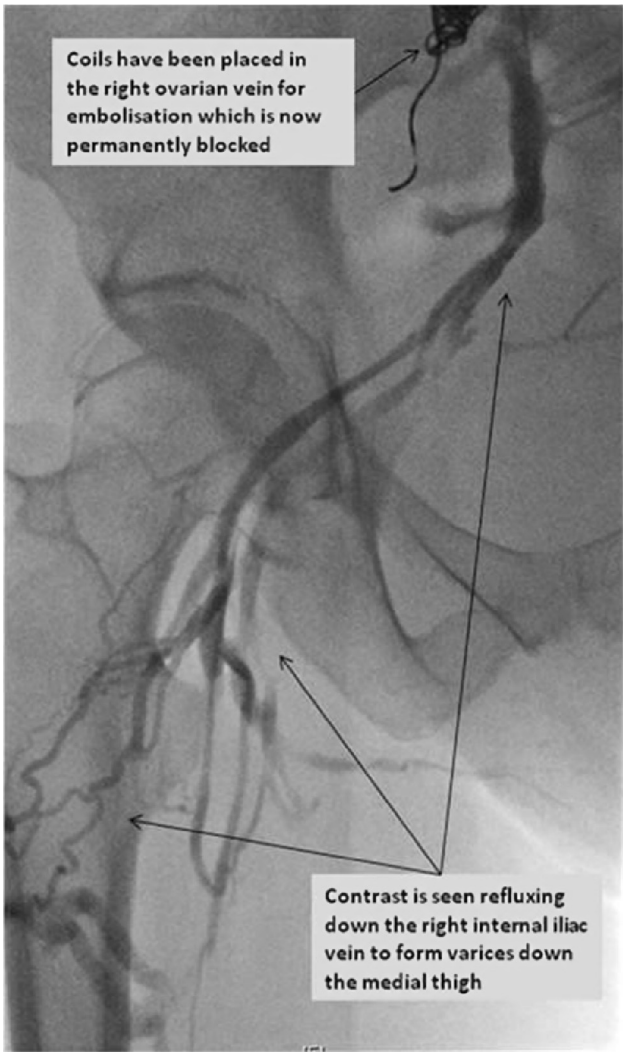

Fig. 2 – (A) Ovarian vein has been blocked, but there are pelvic and medial thigh varicose veins, coming from the internal iliac vein.