auth: Leal Monedero, J.; Zubicoa Ezpeleta, S.; Sánchez Guerrero, A.; Gallo González P.; Sánchez Galán, A.
presauth: Leal Monedero, J.
institutions: Hospital Ruber Internacional. Madrid. España. 28034.
The treatment of the pelvic congestion syndrome.

abstract: Pelvic congestion syndrome (PCS) is the condition of having chronic and non-cyclic pelvic pain of more than six months of duration without known gynaecological cause. It increases with bipedestation, physical activity and Valsalva manoeuvre (cough and constipation) and it is usually related to multiparous women. It can also be perineal heaviness, dyspareunia, painful menstruations and increase in the urinary frequency. It is very common that apart from these symptoms, there are also vulval, perineal and lower limbs varices. Capasso 2000 (1) It generally affects women and it is known that 39.1% of them have suffered chronic pelvic pain in any period of their lives. Jamieson and Steege 1996 (2) Occasionally, there have been cases involving men with hypogastric veins insufficiency, apart form the known testicular varicocele dependent on the spermatic veins.
During the stage of gestation, there is a very important increase in the uterine vascularization and sometimes, after the delivery, some gonadal veins are not retractec, they stay dilated, avalvulated and they invert their blood flow, producing varicose veins in pelvis (utero-ovarian varices) and ectasic venous dilatations which are responsible of the PCS.
It is very common the presence of leaks or pelvic reflux to the lower limbs in association with this syndrome, producing vulval varices as well as atypical varices in the lower limbs.
Diagnosis in performed by transvaginal and transparietal echo-Doppler. In other occasions, it will be useful to count on other imaging techniques as angio-CAT and angio-MR, especially when exploring compressive syndromes. However, diagnostic confirmation is obtained by pelvic phlebography, performing at the same time, if necessary, an endovascular treatment of embolization.
In our work group, we perform the phlebography from a vein of the elbow?s flexure. It is a minimally invasive technique and it allows us to notice, when selectively canalizing the gonadal veins and the hypogastric axis, their dilatation and the blood reflux. The existence of periuterine pelvic varices, ectactic dilatations and the leakage points feeding the vulval and lower limbs varices may be noticed as well. These findings are very significant in the PCS dependent on the gonadal axis insufficiency as a result of multiple pregnancies. Selective pelvic phlebography is effective not only to confirm the patient?s diagnosis but to treat the pelvic congestion syndrome and the leaks in the same procedure by embolization.
Embolization is performed by means of a mixed technique (sandwich method). Leal Monedero, Zubicoa Ezpeleta et al 2004 (3) This technique is bases on the use of coils plus 2% polidocanol foam to close periuterine varices, dilated gonadal veins and the leakage points to the lower limbs. The clinical results of this occlusion are satisfactory in most of the patients. Capasso 2001 (4)
Just like all embolization procedures, it involves a ?post-embolization syndrome?, inherent to the occlusion of the vessels and it is represented by two main symptoms: pain and melitensis (up to 38º). These are very related to the number of treated vessels and their calibres, last few days and are treated with painkillers. Their control and the results follow-up are performed according to the clinic and by transvaginal echo-Doppler every six months.
When pelvic congestion is secondary to the compressive syndromes, as happens in nutcracker syndrome, in which the compression of the left renal vein produces a compensatory collateral circulation through the gonadal vein, overloading the pelvis and triggering varices to the aforementioned vein level, we will perform an embolizing treatment of the gonadal veins, of the pelvic varices as well as of the possible leaks to the lower limbs. If besides the signs and symptoms of the pelvic congestion, there is a significant renocaval pressure gradient (≥5 mm/Hg) and the patient presents symptoms of lumbar pain or pain in the left flank with micro / macro haematuria, it will be necessary to propose the placement of a stent in the left renal vein to release the pressure and to

decompress the kidney. In May-Thurner syndrome, the stent placement is performed in the left iliac vein.

We would like to point out the importance of PCS in the pathology of women with pelvic pain who do not know its origin and the possibilities of its treatment. Likewise, the leaks or the pelvic reflux which produce genital varices, atypical varices and recurrent varices in lower limbs, would also take benefit of the pelvic embolization treatment.