



## Résumés d'articles publiés dans la revue « Phlebology » Volume 25 ; Number 4 : August 2010

### A-Z Series article

#### The venous system of the pelvis: new nomenclature.

Kachlik D.<sup>1</sup>, Pechacek V.<sup>2</sup>, Musil V.<sup>3,4</sup>, Baca V.<sup>1</sup>

1. Department of Anatomy, Third Faculty of Medicine, Charles University in Prague, Ruská 87, Praha 10, 10000;
2. Outpatient Department of Angiology, Brno;
3. Centre of Scientific Information, Third Faculty of Medicine;
4. Institute of Information Studies and Librarianship, Faculty of Arts, Charles University in Prague, Praha, Czech Republic

**Correspondence to:** Kachlik D., Clinical Anatomist.  
E-mail: [david.kachlik@lf3.cuni.cz](mailto:david.kachlik@lf3.cuni.cz)

**Abstract:** The clinical venous anatomy of the pelvis and its veins featured a break-through during the past few years. Not only the diagnostic and therapeutical methods but also the knowledge of the functional anatomy and nomenclatures of the veins underwent substantial changes. Eleven years ago, the most recent revision of the Latin anatomical nomenclature, *Terminologia Anatomica* (TA, 1998) was issued. In 2004, during the 21st World Congress of the International Union of Angiology, a consensus document (under the auspices of Federative International Committee on Anatomical Terminology and International Federation of Associations of Anatomists), reflecting phlebologists' requests for new terms and replacing several insufficient ones, was accepted. Six new terms were added in both Latin and English languages in the chapter concerning the veins of the pelvis. Eponyms are not considered equal synonyms and moreover only one of them was recommended for general use. Detailed anatomy of the veins of the pelvis is discussed. This consensus document will be incorporated in the next version of the *Terminologia Anatomica*.

### Original Article

#### Outcome following saphenopopliteal surgery: a prospective observational study.

Ikponmwo A.<sup>1</sup>, Bhasin N.<sup>1</sup>, Weston M.J.<sup>2</sup>, Berridge D.C.<sup>1</sup>, Scott D.J.A.<sup>1</sup>

1. Leeds Vascular Institute, Leeds General Infirmary;
2. Department of Vascular Radiology, St James's University Hospital, Leeds, United Kingdom

**Correspondence to:** Professor Scott D.J.A., MD FRCS, Leeds Vascular Institute, Leeds General Infirmary, Leeds LS1 3EX, United Kingdom.  
E-mail: [julian.scott@leedsth.nhs.uk](mailto:julian.scott@leedsth.nhs.uk)

**Abstract:** **Objectives:** High recurrence rates following small saphenous varicose vein surgery have been reported. The aim of this study was to ascertain initial success rates following saphenopopliteal junction (SPJ) surgery using pre- and postoperative duplex scanning.

**Methods:** A prospective study was performed on patients with ultrasound-proven SPJ reflux. Patients underwent preoperative duplex skin marking and a postoperative quality assurance scan.

**Results:** Ninety procedures were performed in 88 patients. The SPJ was successfully ligated in 87 (96.7%) cases. Reflux was completely abolished in 51 (56.7%) cases, but persisted solely in the small saphenous vein (SSV) in 32.2%. Subsequently, 10 consecutive patients underwent 11 SPJ ligations with stripping of the SSV. Follow-up ultrasound scan demonstrated successful ligation of the SPJ and elimination of superficial venous reflux.

**Conclusion:** This study demonstrates that preoperative duplex SPJ marking results in a high percentage of successful ligation. Given that residual persistent reflux was avoided in patients who underwent stripping of the SSV, we propose that patients who require SPJ surgery undergo duplex marking along with specific consideration with regard to treatment of the residual SSV.

**Keywords:** varicose vein, duplex ultrasound, preoperative marking, saphenopopliteal junction surgery, recurrence.

Original Article

**Pelvic vein incompetence influences pain levels in patients with lower limb varicosity.**

Asciutto G., Mumme A., Asciutto K.C., Geier B.

Department of Vascular Surgery, St. Josef Hospital, Bochum, Germany

**Correspondence to:** Asciutto G., MD, Kassenberger Straße, 101, 44879 Bochum, Germany.  
E-mail: [hasci@tin.it](mailto:hasci@tin.it)

**Abstract:** **Purpose:** To detect the influence of pelvic vein incompetence (PVI) on pain levels in patients with varicosity of the lower limb.

**Materials and methods:** Women of child-bearing age with symptomatic primary or recurrent varicosity of the greater saphenous vein (GSV) were prospectively included in two groups depending on the presence or absence of phlebographic signs of PVI. Pain assessment was carried out with the help of a visual analogue scale (VAS).

**Results:** Forty women were included in the study. Nineteen of them had phlebographic evidence of PVI (group A), whereas 21 were included in the control group (group B). Patients of group A reported a higher median total pain level than patients of group B (group A median 62, range 25–100; group B median 32, range 0–100;  $P = 0.001$ ). In group A, patients experienced a median level of pain of 67.2 at the lower limb in the standing position (range 40–100) versus a median of 50.3 (range 36–81) in patients of group B ( $P = NS$ ). The median level of leg pain in the sitting position was 41.2 (range 0–67) in patients of group A and 38.1 (range 0–46) in women of group B ( $P = NS$ ). Pelvic pain level in the standing position was higher ( $P = NS$ ) in patients of group A (median 72.2, range 50–91), than in women of group B (median 20.1, range 0–41). In patients of group A, statistically significant ( $P = 0.0001$ ) higher VAS scores for pelvic pain level in sitting (group = A median 67.2, range 59–71; group B median 18.1 range 0–35) were reported.

**Conclusions:** In a small population of patients with GSV varicosity, overall pain levels were significantly higher in a subgroup of patients with phlebographic signs of PVI. This finding suggests that the presence of PVI might influence the intensity of varicosity symptoms.

**Keywords:** pelvic vein incompetence, pain levels, lower limb varicosity, visual analogue scale.

Original Article

**Secondary care treatment of patients with varicose veins in National Health Service England: at least how it appeared on a National Health Service website.**

Lim C.S., Gohel M.S., Shepherd A.C., Davies A.H.

Imperial Vascular Unit, Charing Cross Campus, Imperial College London, London, United Kingdom

**Correspondence to:** Davies A.H., MA DM FRCS, Imperial Vascular Unit, 4 East, Charing Cross Hospital, Fulham Palace Road, London W6 8RF, UK.  
E-mail: [a.h.davies@imperial.ac.uk](mailto:a.h.davies@imperial.ac.uk)

**Abstract:** **Objectives:** This study aimed to assess the trends and regional variations in secondary care treatment of patients with varicose veins in National Health Service (NHS) England based on data published by the Hospital Episode Statistics which was freely and readily available to the public and health-care policy-makers.

**Methods:** Hospital Episode Statistics data for patients being treated for varicose veins, and UK Statistics Authority population estimates in all 28 Strategic Health Authorities (SHAs) in England from 2002 to 2006 were retrieved and analysed.

**Results:** Between 2002 and 2006 there was a 20% overall reduction (46,190–37,135) in the total number of varicose vein procedures performed in NHS England per year. The number of varicose vein procedures performed per 100,000 population per year varied significantly across the SHAs ( $P < 0.0001$ ). Similarly, significant regional variations were also noted in the frequency of primary procedures of greater and small saphenous vein ( $P < 0.0001$ ). During this time, injection sclerotherapy was only performed in 15 (53.6%) SHAs. The annual proportion of varicose vein procedures performed as daycases had increased from 56% to 64% during the period.

**Conclusion:** From 2002 to 2006 there was an overall reduction in the total number of varicose vein procedures performed in NHS England with major regional variations.

**Keywords:** varicose veins, ligation, sclerotherapy, surgery, vein stripping.

Original Article

## Does the number of pregnancies affect patterns of great saphenous vein reflux in women with varicose veins?

Engelhorn C.A.<sup>1,2</sup>, Cassou M.F.<sup>2</sup>, Engelhorn A.L.<sup>1,2</sup>, Salles-Cunha S.X.<sup>2</sup>

1. Pontifícia Universidade Católica do Paraná, Curitiba, PR; 2. Angiolab – Laboratório Vascular Não Invasivo, Curitiba, PR, Brazil

Correspondence to: Engelhorn C.A., MD PhD, Rua da Paz, 195- sala 02-Alto da XV, Curitiba, PR, Brazil.

E-mail: [carlos.engelhorn@pucpr.br](mailto:carlos.engelhorn@pucpr.br)

**Abstract:** **Objectives:** Impact of pregnancies on great saphenous vein (GSV) reflux patterns deserves clarification. Which GSV segment is most affected? Is the saphenofemoral junction (SFJ) involved?

**Methods:** Colour-flow duplex ultrasonography was performed in 583 women extremities with primary varicose veins (clinical, aetiological, anatomical and pathological elements [CEAP C2]), without oedema, skin changes or ulcer. Women with previous thrombosis or varicose surgery were excluded. GSV reflux sources and drainage points were located at SFJ, thigh, knee and calf. Prevalence of most proximal reflux source was noted as a function of 0, 1, 2, 3 and 4 or more pregnancies.  $\chi^2$  statistics was employed.

**Results:** Prevalence of GSV reflux was not dependent on 0, 1, 2, 3 or  $\geq 4$  pregnancies: 75%, 69%, 79%, 70% and 76% for right leg ( $P = 0.79$ ) and 78%, 81%, 82%, 79% and 73% for left leg ( $P = 0.87$ ), respectively. Prevalence of SFJ reflux and GSV reflux, starting at the thigh, knee or calf, was similar and showed no tendencies to increase with number of pregnancies.

**Conclusions:** Number of pregnancies did not influence GSV reflux patterns in women with primary varicose veins.

**Keywords:** duplex ultrasound, pregnancy, varicose veins, saphenous vein, venous insufficiency.

Original Article

## Comparison of stiffness and interface pressure during rest and exercise among various arm sleeves.

Hirai M.<sup>1</sup>, Niimi K.<sup>1</sup>, Iwata H.<sup>2</sup>, Sugimoto I.<sup>2</sup>, Ishibashi H.<sup>2</sup>, Ota T.<sup>2</sup>, Nakamura H.<sup>3</sup>

1. Department of Vascular Surgery, Tohkai Hospital, Nagoya; 2. Department of Vascular Surgery, Aichi Medical University, Aichi; 3. Department of Development and Research, Toko Inc, Tokushima, Japan

Correspondence to: Hirai M., MD PhD, Department of Vascular Surgery, Tohkai Hospital, 1-1-1 Chiyodabashi, Chikusaku, Nagoya 464-8512, Japan.

E-mail: [hiraimh@yahoo.co.jp](mailto:hiraimh@yahoo.co.jp)

**Abstract:** **Objectives:** To compare the interface pressure during rest and exercise among various kinds of arm sleeves.

**Methods:** The interface pressure underneath nine different arm sleeves was measured during 10 maximal opening and closing movements of fingers using a pressure transducer (Air Pack Type Analyser) in 16 healthy volunteers. Furthermore, in order to evaluate the characteristics of each arm sleeve, the extensibility, stiffness and thickness were determined *in vitro* by several apparatuses.

**Results:** There was a significant correlation between stiffness and extensibility. The stiffness was significantly correlated with the pressure difference between muscle contraction and relaxation during exercise. The higher the value of stiffness, the greater the pressure amplitude during exercise.

**Conclusion:** Short-stretch arm sleeves characterized with a high level stiffness, including thick round- and flat-knitted arm sleeves, are more beneficial for the augmentation of muscle pumping than long-stretch arm sleeves, in the same way as short-stretch bandages or stockings applied to the leg.

**Keywords:** arm sleeves, stiffness, interface pressure, muscle pump, lymphoedema.

**Original Article**

**Lifestyle factors and varicose veins: does cross-sectional design result in underestimate of the risk?**

Ahti T.M.<sup>1</sup>, Mäkivaara L.A.<sup>1</sup>, Luukkaala T.<sup>1,2</sup>, Hakama M.<sup>1</sup>, Laurikka J.O.<sup>3</sup>

1. Tampere School of Public Health, University of Tampere; 2. Science Centre, Pirkanmaa Hospital District;  
3. Heart Centre, Cardiothoracic Surgery, Pirkanmaa Hospital District, Tampere, Finland

**Correspondence to:** Ahti T., MD, Tampere School of Public Health, University of Tampere, Tampere 33014, Finland.  
E-mail: [tiina.jukkola@uta.fi](mailto:tiina.jukkola@uta.fi)

**Abstract:** **Objectives:** To assess whether smoking, alcohol drinking and dietary factors are linked with varicose veins.  
**Methods:** A middle-aged general population of 4903 was studied, and prevalence rates at entry and five-year incidence of varicose veins were assessed. Lifestyle habits were recorded at entry and at the end of the follow-up.  
**Results:** New varicose veins were significantly more common in individuals with regular alcohol intake, incidence odds ratio (OR) 1.5 (95% confidence interval [CI]: 1.05–2.3) in a multivariate analysis (of 2202 individuals). The association was particularly strong in women. Smokers had a higher incidence of varicose veins compared with non-smokers, OR 1.3 (95% CI: 0.9–1.8), but without statistical significance. Having daily meals of meat implied less new varicose veins than having 0–2 weekly meals of meat.  
**Conclusion:** Alcohol was likely to increase the risk of varicose veins in women and smoking in both genders. These findings were seen in the follow-up design, but not when the data of these risk factors were compared with varicose veins prevalent at entry.

**Keywords:** lifestyle, varicose veins.

**Short Report**

**Deep venous thromboembolism and pulmonary embolization as a rare complication of diagnostic femoral catheterization and prevention of recurrence with inferior vena cava filter prior to cardiac surgery.**

Ardal H.<sup>1</sup>, Yilmaz O.<sup>1</sup>, Arbatli H.<sup>1</sup>, Kuzucu K.<sup>2</sup>, Sönmez B.<sup>1</sup>

1. Cardiovascular Surgery – Memorial Hospital; 2. Radiology – Memorial Hospital, Istanbul, Turkey

**Correspondence to:** Ardal H., Cardiovascular Surgery – Memorial Hospital, Piyalepasa Bulvarı, Istanbul 34000, Turkey.  
E-mail: [drhasanardal@yahoo.com](mailto:drhasanardal@yahoo.com)

**Abstract:** Deep venous thrombosis (DVT) and pulmonary embolism (PE) are rare complications after diagnostic femoral catheterization. A few clinical cases have been reported, especially in the setting of venous compression with an enlarging haematoma, mechanical groin compression or prolonged procedures. Similarly, clinically evident PE after cardiac surgery is also very rare, but may be catastrophic. In this article, we present a case of PE after silent (symptomless) DVT due to femoral catheterization. The patient had critical coronary artery disease and was a candidate of coronary artery bypass grafting. A inferior vena cava filter was implanted prior to cardiac surgery for prevention of a potential pulmonary embolus.

**Keywords:** deep vein thrombosis, pulmonary embolism, Doppler ultrasound, temporary caval filter.

## APPEL POUR COMMUNICATIONS LIBRES

Lors de son Congrès de novembre (17-19 novembre 2011), la Société Française de Phlébologie organise une journée dédiée aux communications libres.

Pour cette séance, nous serions heureux que tous ceux qui souhaitent s'exprimer sur un thème innovant, d'actualité, de controverse ou de mise à jour, envoient par e-mail, afin qu'il soit soumis au Comité de sélection, un résumé de leur communication **impérativement avant le 30 septembre 2011** à l'adresse suivante :

[sfphlebo@club-internet.fr](mailto:sfphlebo@club-internet.fr)

Ce résumé doit être structuré selon les **quatre parties habituelles** :

- objectif de l'étude, méthodes, résultats, conclusion ;
- le titre, le(s) nom(s) de(s) auteur(s), adresse(s) doivent être écrits en minuscules ;
- le nom du présentateur doit être souligné ;
- le texte sera dactylographié avec une police Times corps 12, simple interligne et ne devra pas excéder une page.

Les auteurs qui proposent une communication s'engagent à publier leur communication dans **Phlébologie Annales Vasculaires**.

Aucune communication ne sera acceptée sans cet engagement des auteurs.