Description and Management of C0s patient

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AIM of the PRESENTATION

1st to estimate the prevalence of C$_{0s}$ patient

2^{d} to try recommending a specific management of C$_{0s}$ patient

DESCRIPTION of C_{0s} PATIENT

C_{0s}

A symptomatic patient with no palpable or visible sign of venous disease

Eklöf B. Revision of the CEAP classification : Consensus statement.
J Vasc Surg 2004;40:1248-52

METHODS

A research was made through Medline and Embase databases to identify articles on C_{0s}

RESULTS

Very few articles were identified. Only in the *Vein Consult Program*, the C_{0s} patient was well documented regarding its prevalence, gender repartition, risk factors, investigations and treatment

In the *Vein Consult Program*, the C_{0s} patients represented 19.7% of the 91,545 screened adults

RABE E. Epidemiology of chronic venous disorders in geographically diverse populations : results from the Vein Consult Program. *Int Angiol.* 2012;31(2):105-15
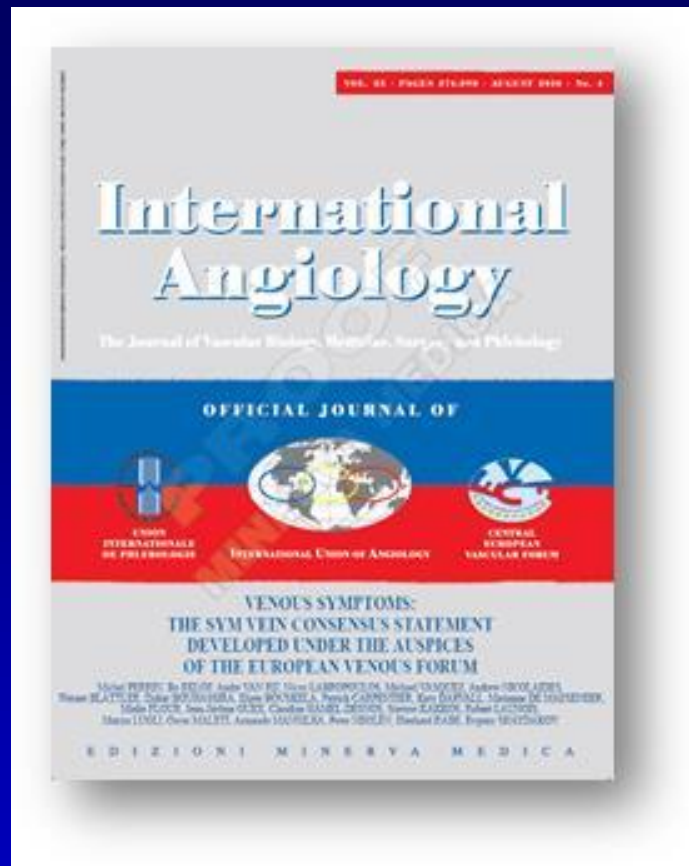
C_{0s} PATIENTS IDENTIFICATION

The fact that leg symptoms are neither specific nor pathognomonic of a venous disorders makes the identification of C_{0s} patients uneasy

Not only such symptoms can stem from other diseases, but chronic venous disorders can be combined with other diseases in some patients, particularly in the older ones

C$_{0s}$ PATIENTS IDENTIFICATION

To help care providers in this field, an international consensus meeting on venous symptoms (called SYM Vein meeting) was held with the aim to solve the ambiguities on venous symptoms

Perrin M, Eklöf B, van Rij A, Labropoulos N, Michael Vasquez M, Nicolaides A et al. Venous symptoms : the SYM Vein Consensus statement. International Angiology 2016;35(4):374-98

C_{0s} PATIENTS IDENTIFICATION

The first step is to eliminate non venous disorders by relying on history, clinical examination and appropriate investigations that may detect neurological, rheumatological, and/or other diseases

C_{0s} PATIENTS CLASSIFICATION

According to the CEAP C_{0s} patient description,
2 groups of patients can be distinguished :

- **GROUP 1** patient with pathophysiological
disorders identifiable by basic routine investigations
 C_{0s}, $E_{p, or\ s}$, $A_{s, or/and\ d\ or/and\ p}$ $P_{r\ or\ o}$

- **GROUP 2** patient without pathophysiological
disorders identifiable by basic routine investigations
. C_{0s}, E_n, A_n, P_n

C_{0s} PATIENTS CLASSIFICATION

GROUP 2 in turn can possibly be subdivided in 2 subgroups

2a subgroup without any anomaly whatever the investigation used and the time of the day examination They remain $C_{0s,}$ E_{n}, $A_{n,}$ P_{n}

C$_{0s}$ PATIENTS CLASSIFICATION

GROUP 2 in turn can possibly be subdivided in 2 subgroups

2b subgroup with anomalies detected by non-routine duplex scan investigation, including investigation of nonsaphenous vein beyond first order saphenous tributaries,

As we know, isolated reflux may be present in these veins without saphenous incompetence.

Vincent JR et al. (J Vasc Surg 2011;54:62S-9S)

This hypothesis must be validated

C_{0s} PATIENTS CLASSIFICATION

GROUP 2 in turn can possibly be subdivided in 2 subgroups

2b subgroup

Another hypothesis is proposed by a muscovite team. According to their trial, reflux in the great saphenous vein is intermittent, occurring at the end of the day or after a long time in orthostatic position

Depending on the time of investigation, the C_{0s} patient could be classified either C_{0s}, E_n, A_n, P_n or

C_{0s}, E_p, A_s, $P_{r\ 2,3}$

C$_{0s}$ PATIENTS MANAGEMENT

Leg symptoms are highly likely to be venous and a venous dysfunction is identified
GROUP 1

The management of these patients depends on the identified pathophysiological anomaly and on the symptoms severity. If the operative treatment of the pathophysiological dysfunction _is mini-invasive_ as endovenous superficial vein ablation (chemical or thermal) or open surgery with preservation the great saphenous vein in a patient identified C$_{0s,}$ Ep$_{,}$ As$_{,}$ P$_{r\ 2\ or\ 3\ or\ 4\ or\ 5}$ with _severe symptoms_, the interventional treatment _might be considered_

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C_{0s} PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous and a venous dysfunction is identified
GROUP 1

Conversely if _the symptoms are moderate_ and the correction of the pathophysiological disorder needs _a most invasive treatment_, for example iliac vein stenting, a conservative treatment should be prescribed first

C_{0s} PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected on routine investigation
GROUP 2

As first step reconsider venous etiology, if other etiology is not identified, we recommend complementary instrumental investigations for identifying possible vein compression, reflux in saphenous veins at the end of the day or when the material is available investigation of saphenous tributaries beyond first order ones

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C_{0s} PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected whatever the investigation
GROUP 2a

For symptomatic patients with no venous dysfunction identified, we recommend conservative treatment
  - patient reassurance
  - life style advices despite they are difficult to put in practice in some professional activity

C_{0s} PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected whatever the investigation

GROUP 2a

For symptomatic patients with no venous dysfunction identified, **we recommend conservative treatment**

 - compression therapy by wearing stockings(<20 mm Hg)
Partsch Int Angiol 2008

but we know that long-term compliance to compression is poor
Raju Ann Vasc 2007, Ziaja Phlebology 2011

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C$_{0s}$ PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected whatever the investigation

GROUP 2a
For symptomatic patients with no venous dysfunction identified, we recommend conservative treatment

Venoactive drugs (VAD) of which efficacy has been widely studied in symptomatic patients but not particularly in C$_{0s}$ patient
In my opinion the best but not unique indication for VAD

C$_{0s}$ PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected on routine investigation but identified by non usual ones

GROUP 2b

Leg symptoms are highly likely to be venous, and <u>an anomaly has been identified</u> as said above by assessing tributary beyond first order or by performing duplex scanning at the end of the day.

C_{0s} PATIENTS MANAGEMENT (ctd)

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected on routine investigation but identified by non usual ones

GROUP 2b
As in group 1 Interventional treatment adapted to the pathophysiological anomaly identified, must be considered For example, in patients with severe symptomatology and presenting isolated tributaries reflux ultrasound guided sclerotherapy shall be indicated. But conservative treatment as stated previously is the most frequently prescribed as complementary investigations are not performed routinely

DISCUSSION

As you probably know the CEAP classification is under revision

At least in Western countries most of the patients complaining of venous symptoms are

investigated by duplex scan

Consequently the 2 groups I described are no more
 a reality. In other words, do we need to exclude
 from C0s patient , those with routine abnormal
DS investigation

CONCLUSION

- C0s patients are presently underdiagnosed and undertreated

- Firstly, to improve C_{0s} patients management, prospective studies are needed to elucidate precisely their pathophysiology when routine investigations are normal. To achieve this goal, we need to develop new appropriate investigations

 - Secondly, according to the precise anomaly identified, we have to determine what treatment is the most cost effective by launching randomized controlled trials