Description of $C_{0s}$ and $C_{1}$ patient
Management of C0s patient

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AIM of the PRESENTATION

1st to underline that classification in $C_{0s}$ and $C_{1a/s}$ needs revision

2d to estimate the prevalence of $C_{0s}$ patient

3d to precise $C_{0s}$ patient status

4th to establish a specific management of $C_{0s}$ patient
DESCRIPTION of $C_{0s}$ and $C_{1}$

PATIENT

$C_{0s}$
A symptomatic patient with no palpable or visible sign of venous disease

$C_{1}$
Telangiectasies or reticular veins in a patient symptomatic or not

Classification in C0s and C1a/s needs revision

• After 40 years and sometimes before every human being presents at least one telangiectasia bunch in the lower limb mostly painless

• But he is complaining of venous symptoms as heaviness, diffuse pain, feeling of edema, etc

• May this patient classified C_{0s} or C_{1s}
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 **20% of the cohorte**.

C₀s PATIENTS IDENTIFICATION

The fact that leg symptoms are neither specific nor pathognomonic of a venous disease makes the identification of C₀s patients uneasy.

Not only such symptoms can stem from other diseases or disorders, but chronic venous disorders can be combined with others diseases in some patients, particularly in the older ones.
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.
Venous symptoms: the SYM Vein Consensus statement developed under the auspices of the European Venous Forum

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The first step is to eliminate nonvenous disorders by relying on history, clinical examination and appropriate investigations that may detect neurologic, rheumatologic, and/or other various causes.
According to the CEAP $C_{0s}$ patient description, 2 groups of patients can be identified:

- **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$_n$
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\textsubscript{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\textsubscript{0s} patient could be classified either C\textsubscript{0s}, E\textsubscript{n}, A\textsubscript{n}, P\textsubscript{n} or C\textsubscript{0s}, E\textsubscript{p}, A\textsubscript{s}, P\textsubscript{r 2,3}

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 $C_0s$, $Ep$, $As$, $P_{r2}$ or 3 or 4 or 5 with severe symptoms, the interventional treatment might be considered
Leg symptoms are highly likely to be venous and a venous dysfunction is identified.

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.
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.
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 as first step conservative treatment using:

- patient reassurance
- life style advices despite they are difficult to put in practice in some professional activity
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 as first step conservative treatment using:

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

GROUP 2a

Venoactive drugs (VAD) of which efficacy has been widely studied in symptomatic patients but not specifically in $C_{0s}$ patient.

In my opinion the best but not unique indication for VAD.
Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected on routine investigation. GROUP 2b

Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected on routine investigation, but anomaly has been identified as said above by assessing tributary beyond first order or by performing duplex scanning at the end of the day.
Leg symptoms are highly likely to be venous, but a venous dysfunction is not detected on routine investigation.

**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 above is the most frequently prescribed as complementary investigations are not performed routinely.
CONCLUSION

- C0s and C1 patients as described in CEAP classification need a revision
- C0s patients are presently underdiagnosed and undertreated
- To improve the status of C0s patients, prospective studies are needed to
  - elucidate precisely their pathophysiology
  - develop new appropriate investigations
  - determine what treatments are the most cost effective