Mini-invasive high-tie by clip apposition versus crossectomy by ligature: Long-term outcomes and review of the available therapeutic options Phlebology *0268355516648066, first published on May 9, 2016*

**Mini-invasive high-tie by clip apposition versus crossectomy by ligature: Long-term outcomes and review of the available therapeutic options**

1. [Sergio Gianesini](http://phl.sagepub.com/search?author1=Sergio+Gianesini&sortspec=date&submit=Submit)[⇑](http://phl.sagepub.com/content/early/2016/05/09/0268355516648066.abstract#corresp-1)
2. [Erica Menegatti](http://phl.sagepub.com/search?author1=Erica+Menegatti&sortspec=date&submit=Submit)
3. [Anna Maria Malagoni](http://phl.sagepub.com/search?author1=Anna+Maria+Malagoni&sortspec=date&submit=Submit)
4. [Savino Occhionorelli](http://phl.sagepub.com/search?author1=Savino+Occhionorelli&sortspec=date&submit=Submit)
5. [Paolo Zamboni](http://phl.sagepub.com/search?author1=Paolo+Zamboni&sortspec=date&submit=Submit)
6. *Vascular Diseases Center, University of Ferrara, Italy*
7. Sergio Gianesini, Unit of Translational Surgery, Vascular Disease Center, University of Ferrara, Via Aldo Moro 8, Cona, 44100 Ferrara, Italy. Email: [sergiogianesini@hotmail.com](mailto:sergiogianesini@hotmail.com)

**Abstract**

**Objective** The aim of the present study is to compare a mini-invasive (smaller than 2-cm incision) sapheno-femoral high-tie by clip apposition (HT group) with a traditional high-ligation by ligature (HL group).

**Methods** One hundred fifty chronic venous disease patients were included in group HT and compared with 150 cases constituting the group HL. The main outcome was the sonographic detection of saphenous trunk recurrences. Procedural pain, esthetic satisfaction, and disease specific quality of life were assessed.

**Results** At 4.5 ± 2.4 years follow-up, 8 cases (5.3%) of Great Saphenous Vein reflux reappearance were reported in group HT vs. 19 cases (12.6%) (odds ratio: 2.6; 95% confidence interval: 1.1–6.1; P = 0.04) of group HL. Esthetic satisfaction was scored as high and very high in group HT and HL, respectively (P < .0001).

**Conclusions** Proper high-ligation technique provides satisfying outcomes both in terms of recurrence rate and patient esthetic satisfaction. The different outcomes obtained by the two groups encourage further investigations regarding recurrence pathogenesis.

* [**Chronic venous insufficiency**](http://phl.sagepub.com/search?fulltext=Chronic%20venous%20insufficiency&sortspec=date&submit=Submit&andorexactfulltext=phrase&src=selected&journal_set=spphl)
* [**great saphenous vein**](http://phl.sagepub.com/search?fulltext=great%20saphenous%20vein&sortspec=date&submit=Submit&andorexactfulltext=phrase&src=selected&journal_set=spphl)
* [**ligation**](http://phl.sagepub.com/search?fulltext=ligation&sortspec=date&submit=Submit&andorexactfulltext=phrase&src=selected&journal_set=spphl)
* [**saphenofemoral junction**](http://phl.sagepub.com/search?fulltext=saphenofemoral%20junction&sortspec=date&submit=Submit&andorexactfulltext=phrase&src=selected&journal_set=spphl)
* [**surgery**](http://phl.sagepub.com/search?fulltext=surgery&sortspec=date&submit=Submit&andorexactfulltext=phrase&src=selected&journal_set=spphl)