AZJCVS
AZerbaijan Journal of CardioVascular Surgery

AZJCVS 2021;2(2):60-2
DOI: 10.30546/azjcvs.2021.2.2.66

Review Article

Nazim Kasimov, Vugar Fattakh Pur, Nubar Ismailova,

Azerbaijan State Advanced Training Institute of Doctors named after A.Aliyev, Baku, Azerbaijan

Received: 30 March, 2021
Accepted: 16 July, 2021
Published: November, 2021

Corresponding Author: Nazim Kasımov, Azerbaijan State Advanced Training Institute of Doctors named after A.Aliyev, Baku, Azerbaijan
Email: info@adhti.edu.az

CITATION
Kasimov NA, Fattakh-Pur VA, Aliyev ShG, Ismailova NF, Bakhshaliev ZF, Babaev RM, Ismailov UZ. Compression therapy in Flebology of Azerbaijan (survey results). AZJCVS. 2021;1(2):60-2. DOI: 10.30546/azjcvs.2021.2.2.66

Compression therapy in Flebology of Azerbaijan (survey results)

Abstract
This article reflects the results of a survey conducted among general and cardiovascular surgeons working in the field of phlebology in Azerbaijan on various aspects of compression therapy in venous pathologies. The questionnaire, consisting of 23 questions, was answered by 30 respondents. The results of the survey confirm that compression therapy plays a leading and important role in the treatment of phlebological pathologies in Azerbaijan. It is shown that the development of modern medical science and phlebological practice, changes in the tactical approach to the structure of treatment, the wider application of new mini-invasive interventions form new trends in the criteria for the appointment of compression therapy

Keywords: Compression therapy, venous insufficiency, phlebology, compression knitwear

INTRODUCTION

In order to investigate the features of the application of compression therapy (CT) in daily phlebological practice, we conducted a survey among general surgeons and vascular surgeons working in the field of phlebology on the basis of a specially prepared questionnaire (1). We analyze the answers to this survey and present the final results.

30 doctors took part in the survey. Their age was between 29-51 years (average age 38.9 years). Work experience in the field of phlebology was 8.8 years (from 1 to 22 years). This indicator allows us to say that the field of phlebology has developed more actively in recent years, and the number of specialists dealing with the problem of venous insufficiency has increased. The analysis of the answers to the questions shows that despite the adherence to general principles, the application of CT in the practical activities of doctors is different.

Azerbaijani specialists attach great importance to compression therapy not only in the manifestations of chronic venous diseases (CVD), but also in cases of functional venous insufficiency. 15.4% of doctors believe that this method of treatment is not of fundamental importance in phlebopathy. At the same time, there is disagreement over the choice of type and class of compression. Interestingly, prophylactic and grade 2 compression are prescribed at the same frequency (26.9%), while grade 1 is prescribed in 42.3% of cases. As for the types of compression, the frequency of compression stockings was 63.6% higher than others, and golf and tights were 40.9% and 22.7%, respectively.

Sclerotherapy is quite popular in the treatment of patients with CVD. Traditionally, the greatest inconsistency has been found in both sclerotherapy techniques and ideas regarding subsequent compression. The results of the survey confirm this. In terms of compression, first and second-class jerseys are the most recommended - 38.5% each, with 77% of respondents preferring

DOI: 10.30546/azjcvs.2021.2.2.66

them for sclerotherapy of telangiectasia. 19.2% of people used moderate elasticity bandages (EB) during sclerotherapy, and no one used adhesive (EB). 5 out of 30 respondents (16.7%) do not prescribe compression at all after stellar sclerotherapy (Figure 1).

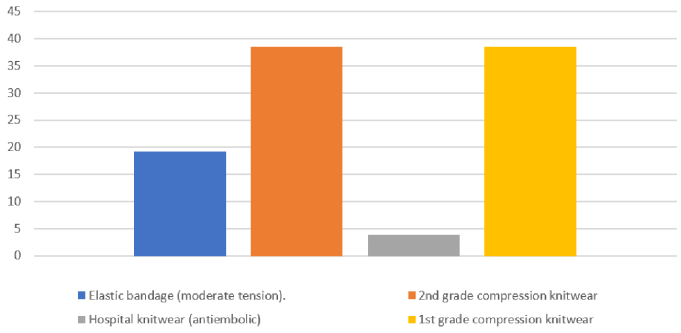

Figure 1. *Compression variant after sclerotherapy in C1 clinical class varicose veins (%)*

The answers to the question about the duration of continuous compression after sclerotherapy were as follows: 34.6% of respondents recommend short-term compression (up to 6 days), and 26.9% prefer a period of 7-14 days. Physicians are more cautious in sclerotherapy of reticular varicose veins - the duration of continuous compression mentioned above is recommended by 23.1% and 42.3% of respondents, and one in four consider it necessary to prescribe compression for more than 14 days (Table 1).

Table 1. Duration of continuous compression therapy after sclerotherapy in clinical class C1 varicose veins (in%)

Answer option	Teleangiectasia	Reticular varicose
Not applicable	23.1	7.7
1-6 days	34.6	23.1
7-14 days	26.9	42.3
More than 14 days	15.4	26.9

The importance of postoperative compression is beyond doubt in any phlebologist. Compression stockings are used more (69.2% of cases) than elastic bandages (50% of cases) during surgery. In 100% of cases, only the medical class is recommended for the purpose of this knitwear, and hospital knitwear does not find a place in this segment. Although surgeons are interested in asymmetric compression (AC) devices, their application in daily surgical practice is still not routine. Although no phlebologist considers it necessary to prescribe immediately after surgery (AC), more than half of respondents (69.2%) use it when there are certain indications (large diameter of the main artery, high body weight of the patient, etc.). We believe that future clinical trials may shed light on this issue.

When determining compression after standard phlebectomy with stripping, a period of more than 1-2 months is preferred (46.2%). However, the majority of doctors (30.8%) think that 3-4 weeks of compression is enough (Table 2). These indicators are consistent with CT research and meta-analysis, which did not reveal a significant difference in long or short-term compressions in the postoperative period (pain, edema, postoperative complications, time to start active activity, etc.) (2). In cases of short stripping and mini phlebectomy, 88.5% of doctors prescribe socks as a universal compression option.

Table 2. C2 clinical class duration of compression therapy after surgery for varicose veins (in%)

Answer option	Stripping	Thermobliteration
1-2 weeks	0	23.1
3-4 weeks	30.8	61.5
1-2 months	46.2	19.2
3-6 months	23.1	7.7
7-12 months	3.9	0

The popularity and active role of minimally invasive endovasal thermo-obliteration methods in Azerbaijani phlebology have differed in the recommendations for postoperative compression. Thus, the total duration of postoperative compression is considered to be reduced by 0.5 months. 69.2% of respondents think that the duration of compression can be shortened in these clinical situations, and about 25% of the participants think that there is no need for compression after thermo-obliteration.

When comparing endovasal radiofrequency and laser obliteration methods, 76.9% of respondents reported no difference in post-procedure compression duration. 19.2% reported shorter compression time after endovenous laser obliteration, and one person reported that no compression was used after radiofrequency obliteration. This information is quite interesting and has not been studied in other literature.

The questions in the questionnaire were devoted not only to compression, but also to other factors to prevent postoperative complications and side effects. Analysis of the appointments after phlebectomy and endovasal interventions with stripping showed that, specialists to the standards of postoperative treatment accordingly 34.6% and 26.9% phlebotonics, 26.9% and 11.5% - analgesics, 65.4% and 26.9% - antibiotics, 38.5% and 26.9% non-steroidal anti-inflammatory drugs, respectively and after two interventions, it includes compression in 100% of cases (Figure 2).

The use of anticoagulants in the postoperative period after standard phlebectomy was recommended by 57.7% of physicians. On the other hand, 88.5% of respondents were in favor of regular prophylactic appointment of anticoagulants after thermo-obliteration. Although this issue remains controversial, the general trend is that the formation of practical algorithms for thermo-obliteration methods changes the frequency of various

DOI: 10.30546/azjcvs.2021.2.2.66

pharmacotherapeutic appointments over time in the postoperative period. In daily phlebological practice, the individual approach to the prevention of venous thromboembolic complications should not be forgotten, and failure to take into account certain risk factors can lead to serious adverse consequences (3).

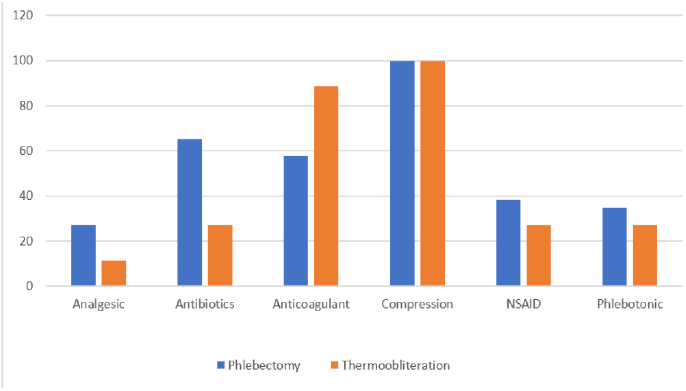

Figure 2. *Comparative description of appointments after standard phlebectomy and thermo-obliteration performed for C2 clinical class varicose veins*

In the analysis of various clinical situations in which compression therapy is used, it should be noted that even in the treatment of edema in the lower extremities in post-thrombotic disease; in most cases, universal compression means are recommended, not the elastic bandage (11.5%). Even at the beginning of treatment, 88.5% of respondents prefer this type of compression. In the case of open venous ulcers of the calf (clinical class C6 according to the CEAP classification), special anti-ulcer compression systems (38.5%) and socks with a degree of compression class 2 (42.3%) are preferred.

In the treatment of acute varicothrombophlebitis of the calf area, the frequency of compression stockings was 76.9%. Only 1/3 of professionals prescribe golf. The majority of respondents prefer 2nd class compression (92.3%).

In the case of acute deep vein thrombosis, compression stockings (61.5%) and tights (69.2%) are prescribed at the localization of the thrombotic process in the calf or hip-thigh segments, respectively. At the same time, the compression class is preferred to the 2nd class (57.7% and 65.4%, respectively, depending on the localization).

The main trademarks of compression knitwear prescribed by specialists were Medi, Variton and TonusElast (65.4%, 38.5% and 30.8%, respectively). The RAL-GZ 387 standard is recognized by 44% of professionals as an absolute quality standard, while 56% consider its existence desirable. The questionnaires included questions about objections to various trademarks of compression devices (without specifying specific criteria). The least criticism was made by experts on the trademarks Medi, Sigvaris and Variton.

Summing up the results of this survey, we can say that the importance of compression as a basic and important method in the conservative treatment of CVD is undoubted. At the same time, we see that the development of medical science and phlebological practice, changes in modern tactical approaches, as well as the emergence of new mini-invasive techniques have affected the basic principles of CT. There is also a need for thorough clinical research to clarify the uncertainties in this area.

Competing interests: No company was involved in the preparation of the article, the analysis of the answers given by the respondents, their interpretation. No financial support was provided to the author to conduct the survey and analyze the results.

Financial Disclosure: There are no financial supports.

Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Study Association: This study is not associated with any thesis or dissertation work.

REFERENCES

1. Sapelkin SV, Zolotukhin IA. Compression in Russian phlebological practice (results of a survey of participants in the 10th conference of the Association of Phlebologists of Russia). Phlebology. 2015;3:4-10.
2. Huang TW, Chen SL, Bai CH, Tam KW. The optimal duration of compression therapy following varicose vein surgery: a metaanalysis of randomized controlled trial. Eur J Vasc Endovasc Surg. 2013;45:397-402.
3. Sutton PA, El-Dhuwaib Y, Dyer J, Guy AJ. The incidence of postoperative venous thromboembolism in patients undergoing varicose vein surgery recorded in Hospital Episode Statistics. Ann R Coll Surg Engl. 2012;94:481-3.