

What is the Evidence that Total Foam Volume is related to Safety?

S. Guggenbichler

Private Practice Ambulantes BeinCentrum, Munich, Germany

Since the first Consensus meeting, which was held at Tegernsee in Germany in 2003, the foam volume has been limited to 10 ml per treatment session for safety reasons. The fear of triggering a deep vein thrombosis was augmented by experiences of sclerotherapists using high volumes of foamed sclerosant. At the first European Consensus meeting in 2006 there was little evidence for limiting the foam volume to 10 ml but this recommendation was given again. In the recently published European Guidelines for Sclerotherapy the following advice is given for foam volumes:

“There is no evidence-based limit for the maximum volume of foam per session. The incidence of thromboembolic complications and transient side-effects (e.g. visual disturbances) rises with higher volumes of foam.

The recommendation is a maximum of 10 ml of foam per session in routine cases (Grade 2B) and that higher foam volumes are applicable according to the individual risk-benefit assessment (Grade 2C).”

K. Meyers has clearly shown in 2008 that with higher volumes of foam the rate of thromboembolic events increases from 0.6% to 3%. Wright had to change his study design due to an unacceptable rate of deep vein thrombosis using high foam volumes in the sclerotherapy group.

On the other hand, T. Sarvananthan suggested that the volume of foam seems not to be correlated to higher rates of transient neurological symptoms.

Considering the main studies published in the last years, the mean volume injected at each session was usually around 10 ml of foam which was generally sufficient for good results.

A Survey among the members of the sclerotherapy working group, a subgroup of the German Society of Phlebology, carried out in 2012 clearly showed that 90% of the highly skilled phlebologists do not use more than 10 ml of foam for sclerosing veins in one session.

In conclusion, these studies underline the first experiences stated in the Consensus 2003 where the recommendation was given that it is better to limit the foam volume than the concentration of the sclerosant. It makes sense for safety reasons to limit the foam volume and rather increase the number of sclerotherapy sessions instead of the volume of foam at a single session.