



Systematic review using PRISMA framework



Reports describing the EV interventions in venous TOS

## Aim

To examine the current evidence on the results of endovascular management of vTOS that occurs in several phases: diagnostic, preoperative therapeutic intervention before decompression, postoperative interventions after decompression, and delayed interventions in the follow-up.

## Methods

A systematic review using the PRISMA guidelines was performed from 1992 to 2022 with the search terms venous TOS and endovascular or thrombolysis and decompression. The methodological quality of the studies was assessed with the MINORS tool, and bias was assessed with the Newcastle-Ottawa Tool.

## Outcomes

4000 patients have been treated for vTOS and reported in the literature from 1992 to 2022 in 90 retrospective case series and 16 case reports. Dec clotting was followed by surgical decompression in 53% of patients, while in the remainder, surgical decompression alone (18%), endovascular intervention alone (15%), or conservative therapy with anticoagulation (15%) was performed. The methodology quality of the included studies was low, and the risk of bias was high.

### Outcomes

Intervention	Patients (n)	%	Successful dec clotting	Symptom relief	Patency @1yr
Anticoagulation alone	622	15%		64±37%	39±40%
Dec clotting with decompression	2111	53%	93±18%	94±12%	89±17%
Dec clotting without decompression	574	14%	97±16%	90±23%	80±28%
Decompression only	709	18%		83±23%	69±27%

Only 50% of cases in the literature report preoperative endovascular intervention followed by decompression for “effort thrombosis” Intervention with or without a dec clotting procedure is superior to conservative management.