

A stylized, blue-tinted image of the Eiffel Tower, showing its intricate lattice structure, positioned on the left side of the slide.

**CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE**  
**CONTROVERSIES & UPDATES**  
**IN VASCULAR SURGERY**

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**Morel Lavallée syndrome:  
Treatment**

**Dra Lourdes Reina**

**Dra Agnieszka Nowak**



## Disclosure

Dr. Lourdes Reina

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Shareholder in a healthcare company
- Owner of a healthcare company
- Other(s)
- I do not have any potential conflict of interest





# Polidocanol foam sclerotherapy of seromas after varicose vein surgery

Dra Lourdes Reina

Dra Agnieszka Nowak

Vascular Surgery Department

Cruz Roja Hospital





## Seromas after varicose vein surgery

- Seromas are rare complications: 0%-3.4%

Lymphatic channels transacted during surgery



form collections in subcutaneous tissue



## Seromas after varicose vein surgery

- Mostly presents as **palpable masses** or swelling in phlebectomy áreas.
- Sometimes, **pain** at palpation or inflammation signs as **redness**, **heat** and spontaneous pain.



## Seromas after varicose vein surgery

Complicated by:

- **Infection.**
- Compression of structures: **restricted blood flow** and **neuropathy.**
- In rare cases, **lymphedema.**

Significant **impairment of quality of life**, especially if **chronic course**





## Seromas and lymphoceles after varicose vein surgery

- **Conventional treatment** such as “wait and see”, compression, manual lymphatic drainage and sterile needle aspiration remain the **preferred choice**.



- **In persistent cases:** surgical excision or sclerotherapy.



## Polidocanol sclerotherapy of seromas after varicose vein surgery

- Laverson 1999: **1 recurrent case** with liquid pol.
- Moritz 2013: **6 recurrent cases after single needle aspiration** treated with 0.5 % pol foam.
- Fernández 2016: paraprotics and postphlebectomy seromas with 2% pol foam.

**safe and effective treatment**



# Polidocanol foam sclerotherapy of seromas after varicose vein surgery

## Preliminary experience in Cruz Roja Hospital

- We added this **off-label** treatment in our Unit in March 2016 until nowadays.
- Not followed a unified protocol: **treating physicians' criteria.**



# Technique of foam sclerotherapy of seroma after varicose vein surgery

- Local anesthesia.
- Echoguided evacuation of seroma.
- Echoguided injection of 2% polidocanol foam 1:4 Tessari method.
- After 2-3 minutes, evacuation of foam.
- Excentric compression and medical stockings.
- Revision in 1-2 weeks and retreatment if needed.





# Technique of foam sclerotherapy of seroma after varicose vein surgery















## Follow-up

### Ecodoppler:

- Septae and thickness of cavity walls:
  - Good answer to treatment.
  - After both single needle aspiration and sclerotherapy.





# Polidocanol foam sclerotherapy of seromas after varicose vein surgery

- Aim of the study:

Verify the **effectiveness** and **safety** of polidocanol foam sclerotherapy of seromas after varicose vein surgery.



## Material and Method: Methodology

- Descriptive, observational and retrospective study.
- Analyzed 34 seromas in 33 patients that complicated 2.690 varicose vein interventions (1.2%) from march 2016 to december 2018.
- All seromas were located in phlebectomy areas:13 leg and 1 thigh.



# Material and Methods

## Methodology

### Variables:

- Demographic.
- Symptoms, postsurgery and seroma treatment complications.
- Time to resolution.
- Technique details.

### Statistic Analysis:

- SPSS 20 for Windows: Chi square test and Kruskal-Wallis test.
- It was considered significant the difference with a  $p < 0.05$





# Material and Methods

## Methodology

Four groups of treatments:

Group 1: Compression.

Group 2: Single needle aspirations.

Group 3: Single needle aspirations. If recurrence or poor evolution foam sclerotherapy.

Group 4: Polidocanol foam sclerotherapy

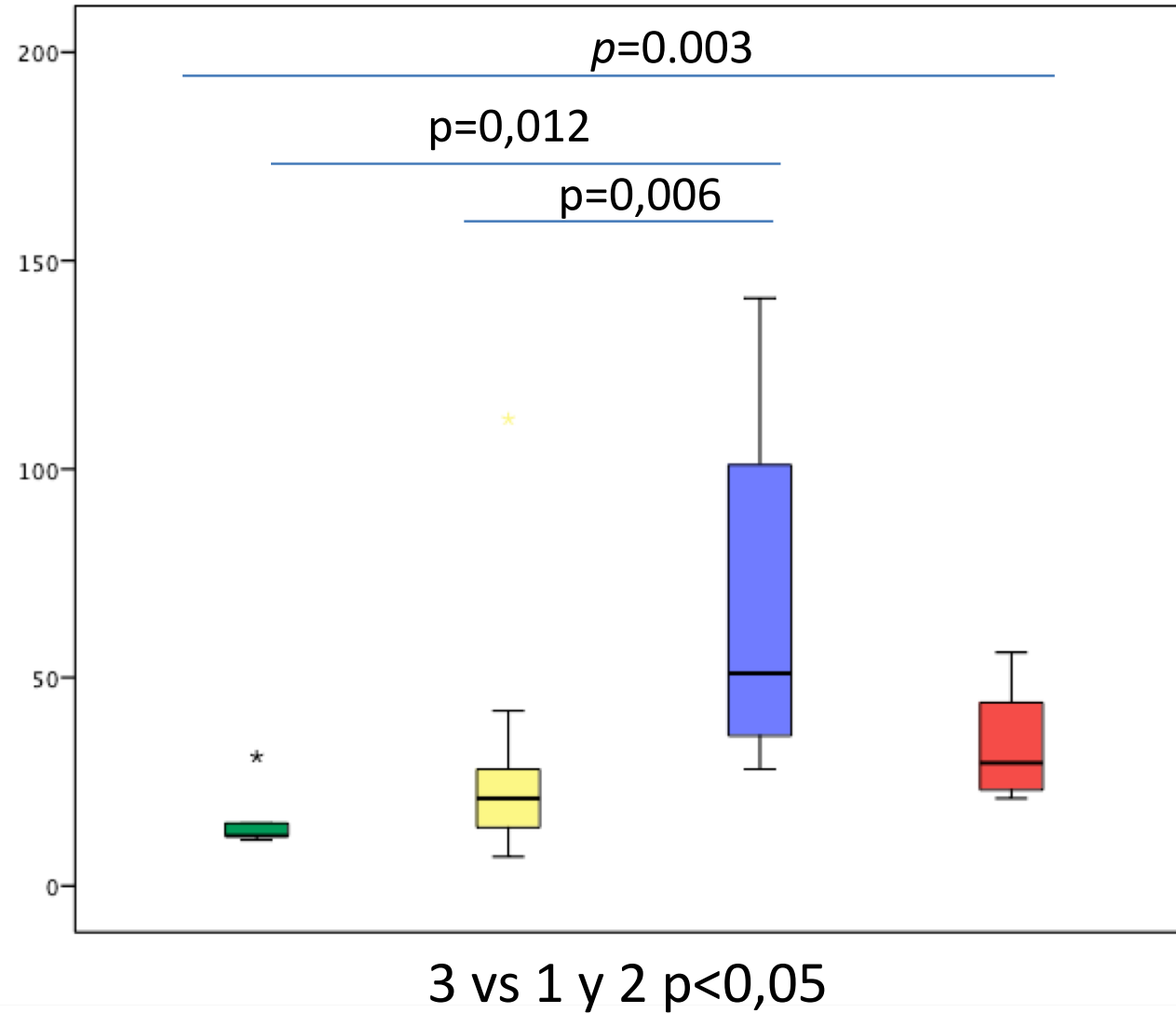


## Results: demographic and clinical variables

	Compression treatment n=5	Needle single aspiration n=15	Single needle aspiration and sclerotherapy n=8	Sclerotherapy n=6	<i>p</i>
Age	45,80 (14.41)	52,93 (9.75)	56.62 (8.01)	60.66 (13.29)	0.23
Sex % Male	60% (3)	66.7% (10)	37.5% (3)	50% (3)	0.58
Symptoms	0% (0)	20% (3)	75% (6)	66,7% (4)	0.008
Postsurgery complications	20 % (1)	20% (3)	25% (2)	0% (0)	0.64
Seroma treatment complications	0% (0)	0% (0)	0% (0)	16.7% (1)	0.18
Time to resolution (days)	16.20 (8.40)	27.53 (25.98)	99.37 (123.15)	33.83 (13.81)	0.003



# Time to resolution





# Results: technique variables

	Compression treatment n=5	Needle single aspiration n=15	Single needle aspiration and sclerotherapy n=8	Sclerotherapy n=6	p
Initial volume aspirated (ml)		1.04 (0.84)	2.06. (2.09)	1.68 (1.01)	0.14
Numbers of single needle aspirations		1.5 (0.74)	1.12 (0.35)		0.162
Total aspirated volume (ml)	<b>No statistically significant differences</b>				0.20
Numbers of sclerotherapy sessions			1.75 (1.75)	1.16 (0.40)	0.65
Total aspirated volume sclerotherapy (ml)			4.15 (5.33)	2.26 (2.36)	0.74





# Results

## Complications:

- **Secondary seroma treatment:**
  - 1 minor eczema secondary to compression in group 2.

- All four treatments were safe
- No difference between the 4 groups



# Results

## Complications:

- **Secondary to vein surgery or seroma :**
  - 1 distal SSV thrombophlebitis and leg haematoma.
  - 1 surgical wound infection.
  - 3 transitory sensitive neuropathy in medial leg.
  - 1 lymphorrhagia.
  - 2 medial thigh haematoma.
  - 2 transitory lymphedema

No difference  
between the 4 groups

**Polidocanol foam sclerotherapy of persisting postoperative seromas after varicose vein surgery: a series of six cases**

**R K C Moritz, S Reich-Schupke, P Altmeyer and M Stücker**

Department of Dermatology – Vein Centre of the Departments of Dermatology and Vascular Surgery, Ruhr-Universität Bochum

## Comparing our results with Moritz's study:

- Approach similar to our group 3.
- Good results.
- **But:**
  - Time to regression of seromas longer.
  - Number of sclerosant sessions higher.

Bigger seromas

0.5% Polidocanol

Sclerotherapy after three previous single needle aspirations by protocol.



## Conclusion

- Polidocanol foam sclerotherapy has showed to be a safe and effective treatment not only in recurrent or poor evolution after conventional treatment

Also, as first choice treatment

It could be even more effective





# Conclusion

- We cannot conclude if one treatment was better than another:

observational descriptive study  
with a very small numbers of patients



# Conclusion

- We need RCTs.
- Limitations:
  - Rare complication: ¿multicentre study?
  - Most are small seromas with good evolution with conventional treatment.



Until more evidence appears...

Protocol in Cruz Roja

Group 1  
Compression and single needle  
aspiration for small and  
asymptomatic or little symptomatic  
seromas.

Group 2  
Foam sclerotherapy as first  
choice treatment for  
symptomatic/big seromas.

...and see what happens

