



Extravasation of sclerosing agent do not obligatory provoke necrosis

A.-A. Ramelet, Bern (Switzerland)

No potential conflict of interest

Necrosis and sclerotherapy :



Mechanisms

- Direct toxicity: Iodine, ? STS ? Hypertonic saline
 - Arterio-venous microfistulas
 - Inadvertent intra-arterial injection
 - Venous-arterial reflex vasospasm
 - Parietal diffusion
-
- Exceptional with chromated glycerine, polidocanol (in particular with foam)
 - Guex JJ et al. 12,173 sclerotherapy sessions
Dermatol Surg 2005;31: 123-8



Polidocanol

- Anaesthetic agent (BASF, 1936)
- Side effect: vascular obliteration

- Nr 1 Drug for sclerotherapy
- Topical antipruriginous agent in Dermatology
- Paravasal injection in C1: Quaddeln (W. Goor)

- POL is unique among sclerosing agents in that it is both painless to inject and does not produce cutaneous ulceration, even with intradermal injection of concentrations less than 1%
(Goldman, 4th ed.)

Skin necrosis - Animal studies

- **MP Goldman**
- **No necrosis in rats if < 0.5 mL POL, < 1%, or as foam**
Schuller-Petrovic S et al. JEADV 2011;25: 983-6
- **Paravasal injection of 0.05 – 1 ml polidocanol (0.1 - 1%) in rats**
- **Ultrastructural damage of the arterial and venous media /intima and nerves**

Staubesand J, Seydewitz V. Ultrastructural changes following paravascular and intra-arterial injection of sclerosing agents: an experimental contribution to the problem of iatrogenic damage

Phlebologie 1991;20:1-8

Schibler F, Borradori L, Ramelet AA, Dermatol Surg 2018

- **Anxious patient, 19 years**
- **Atypical naevus (forearm)**
- **Mother: malignant melanoma**

- **Local anaesthesia
(7 cc lidocain-epinephrine)
→ no effect, no vasoconstriction**



Confusion Lidocain - Polidocanol

- **Checking the utilised product....**
- **Polidocanol 0.5%...**
- **Explications, postponed intervention, surveillance**

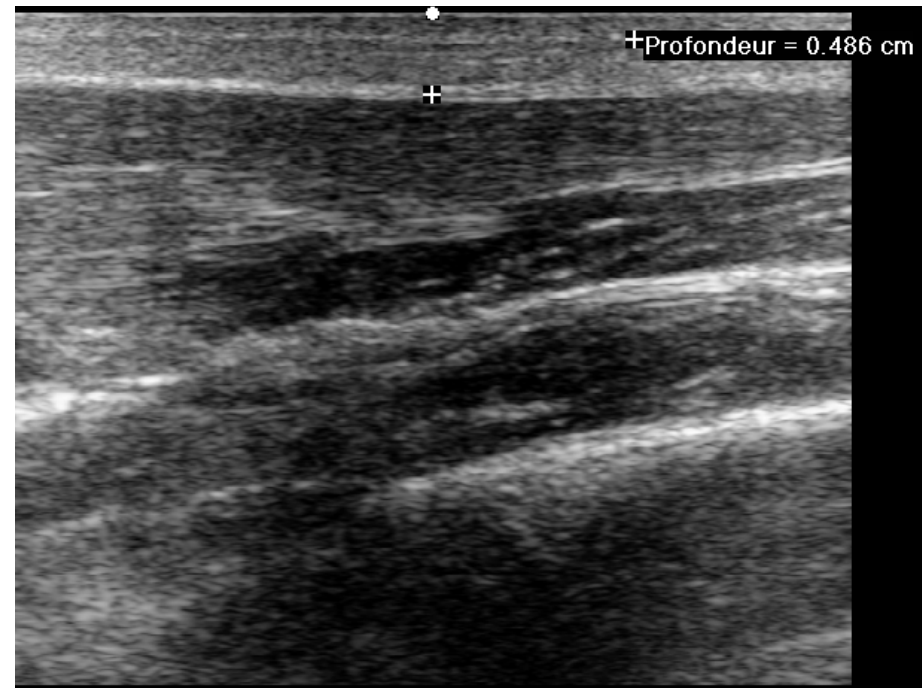
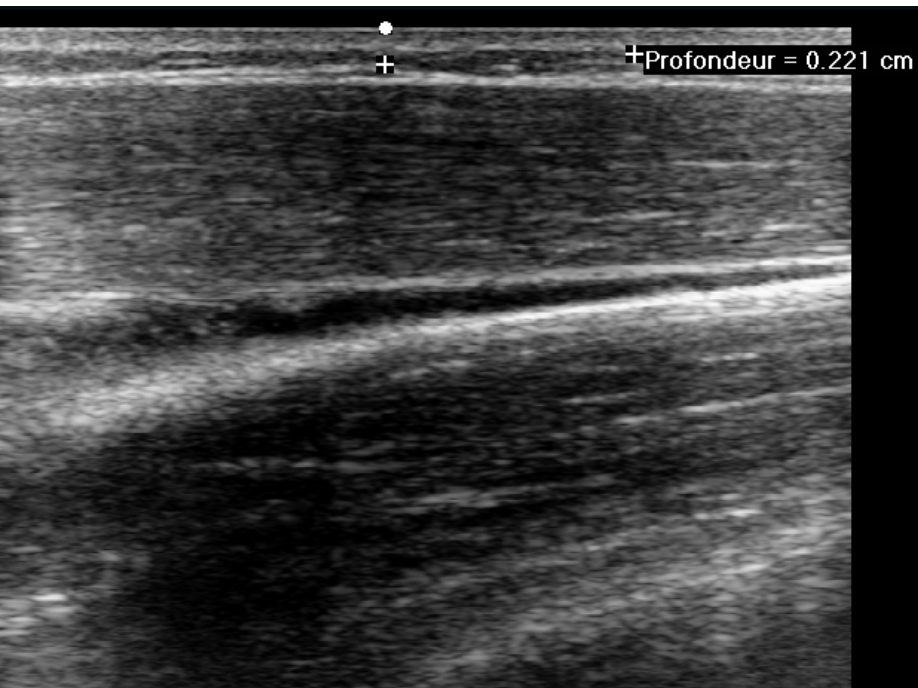
- **Next days**
- **Tumefaction and local warmth**
- **Renitence at palpation**
- **Pain**
- **No cyanosis**

After 14 days

left

forearm

right

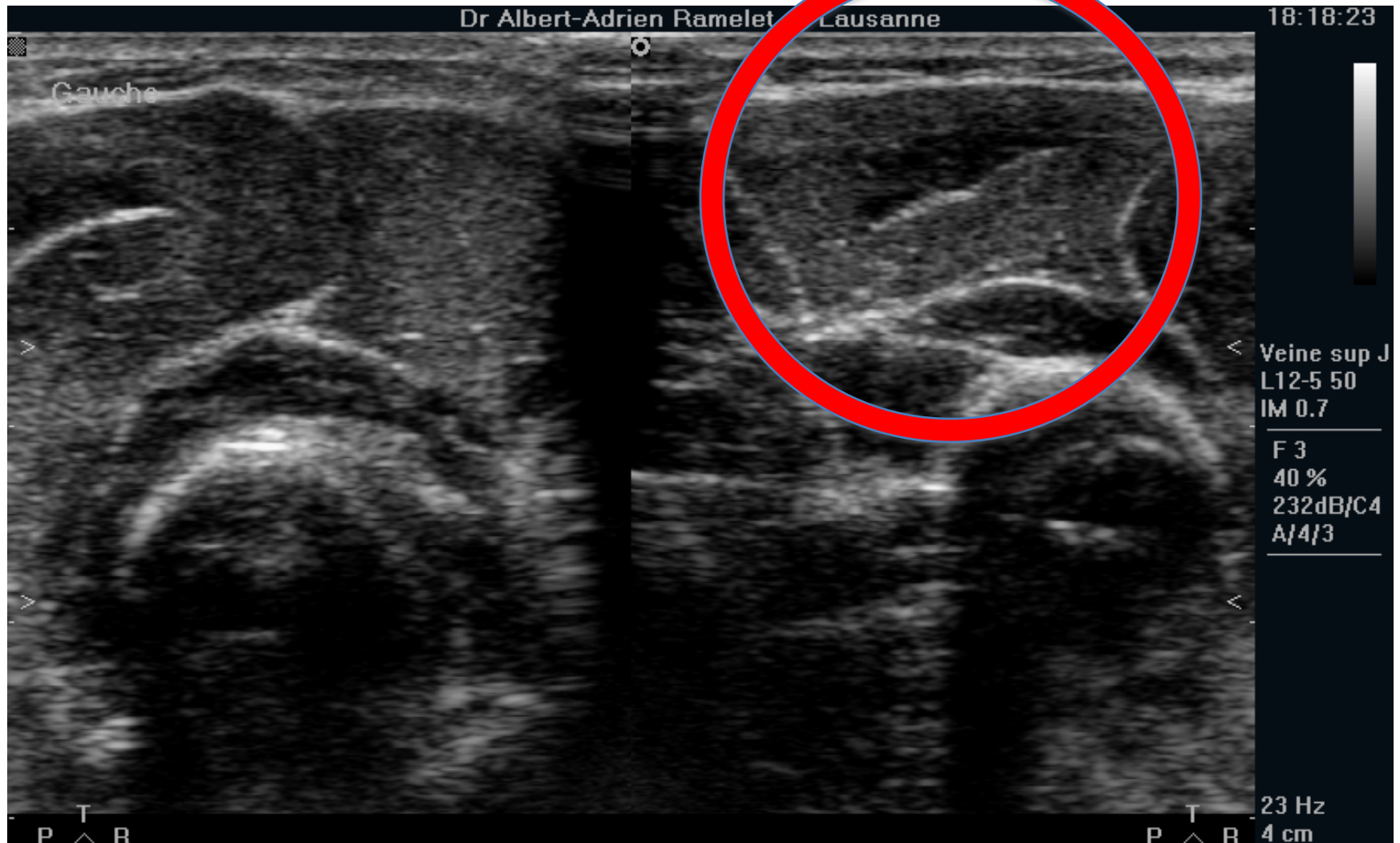


After 14 days

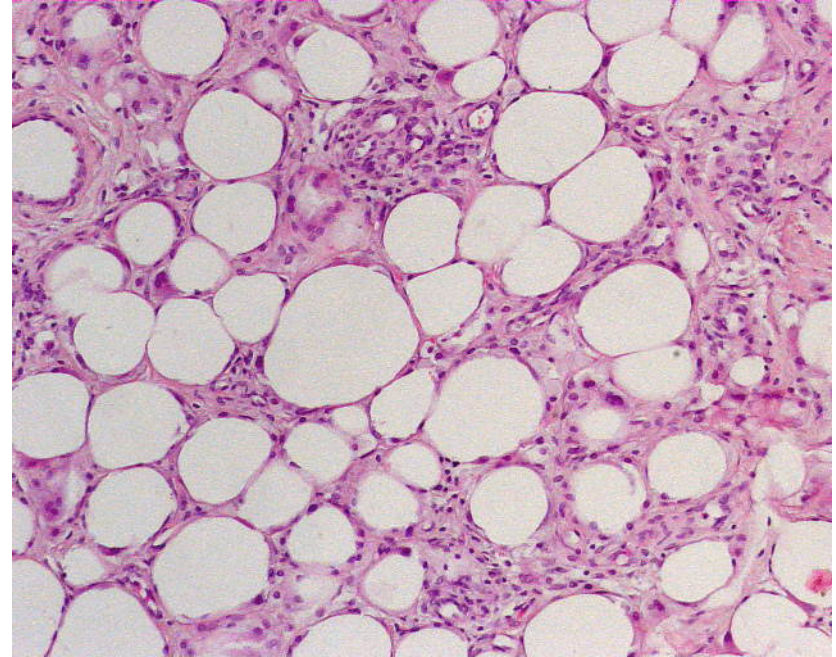
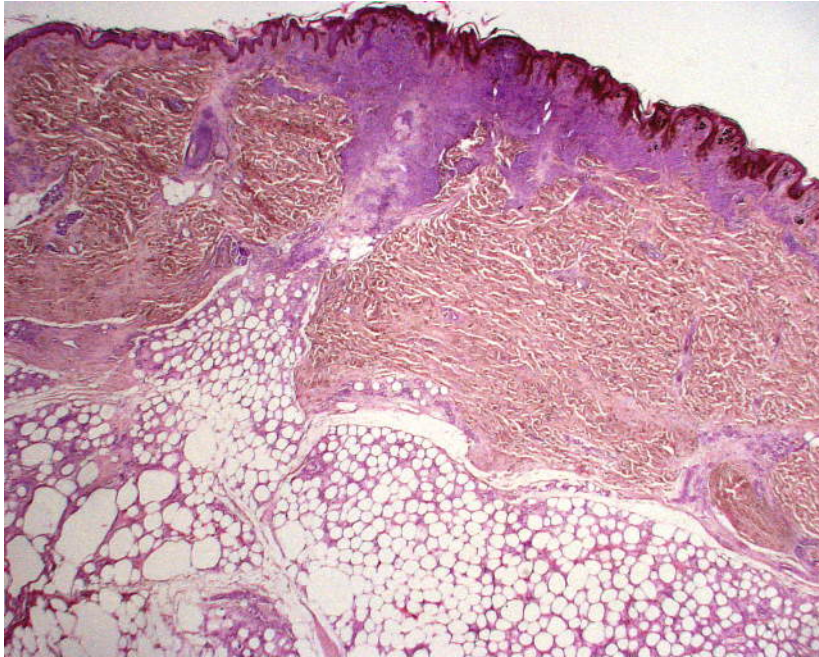
left

forearm

right



**6 weeks later,
excision in LA...**



**Dysplastic melanocytic Naevus
Underlying panniculitis**



Conclusions

Polidocanol:

- **A good sclerosing agent, a bad anaesthetic**
- **Necrosis – exceptional, even if paravasal**
- **Beware transparietal diffusion in arteries, veins and nerves ?**