

Comparison of open and percutaneous
femoral approaches for endovascular
procedures:

Multi-Center Prospective Analysis on 252

patients
Reference DESTRIEUX and ARCHIV
Group
ANCE



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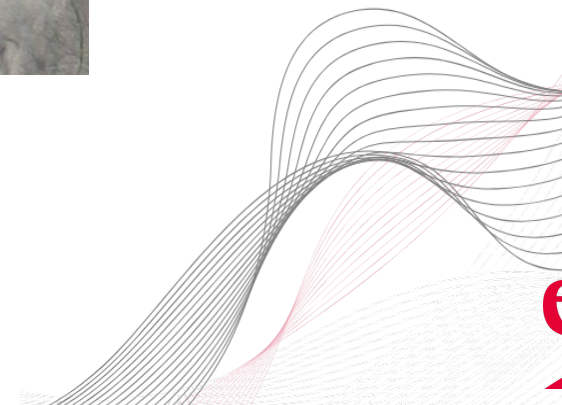
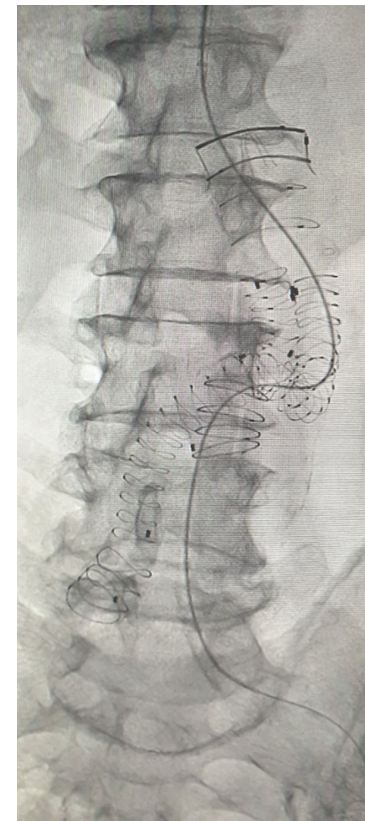
Disclosures

I do not have any potential conflict of interest

Advantages of brachial access



- Pathological scarpa
- Better Support cable
- Ergonomic arterial access
- Avoid arterial bypass punctures
- Alternative when impossible cross over
- Facilitates the resumption of walking



Stakes of brachial routes



	Publication	Complications %	Minor Complications	Major Complications	Surgical revision rate	AVC Infarctus Décès
Complications of transbrachial arterial access for peripheral endovascular interventions <i>Karla Maria Treitl and co</i>	J Endovasc Therapy 2015	16,7%	21 (14%) Hematoma, False aneurysms	4 (2,7%) 3 occlusions, 1 nerve injury	3 (2%) Embolectomies	0
Efficacy and Safety of Transbrachial Access for Iliac Endovascular Intervention <i>Stavroulakis K and co</i>	J Endovasc Therapy		40 (19,9 %) Hematoma	13 (6,3%)		2,5% 2 AIT 1 IDM
Treatment of peripheral arterial disease via percutaneous brachial artery access <i>Randall W. Franz and co</i>	J Vasc Med Biol					0
Safety and Efficacy of Transbrachial Access for Endovascular Procedures: A Single-Center Retrospective Analysis <i>Petrov and co</i>	Cardiovasc Revasc Med 2020	10,2%	62 (7,3%)	25 (2,9%)	19 (2,2%)	0
Total		12,7%		3,55%		0,2%

1472 cases
100% percutaneous access
12,7% of complications

Objectives of ARCHIV study

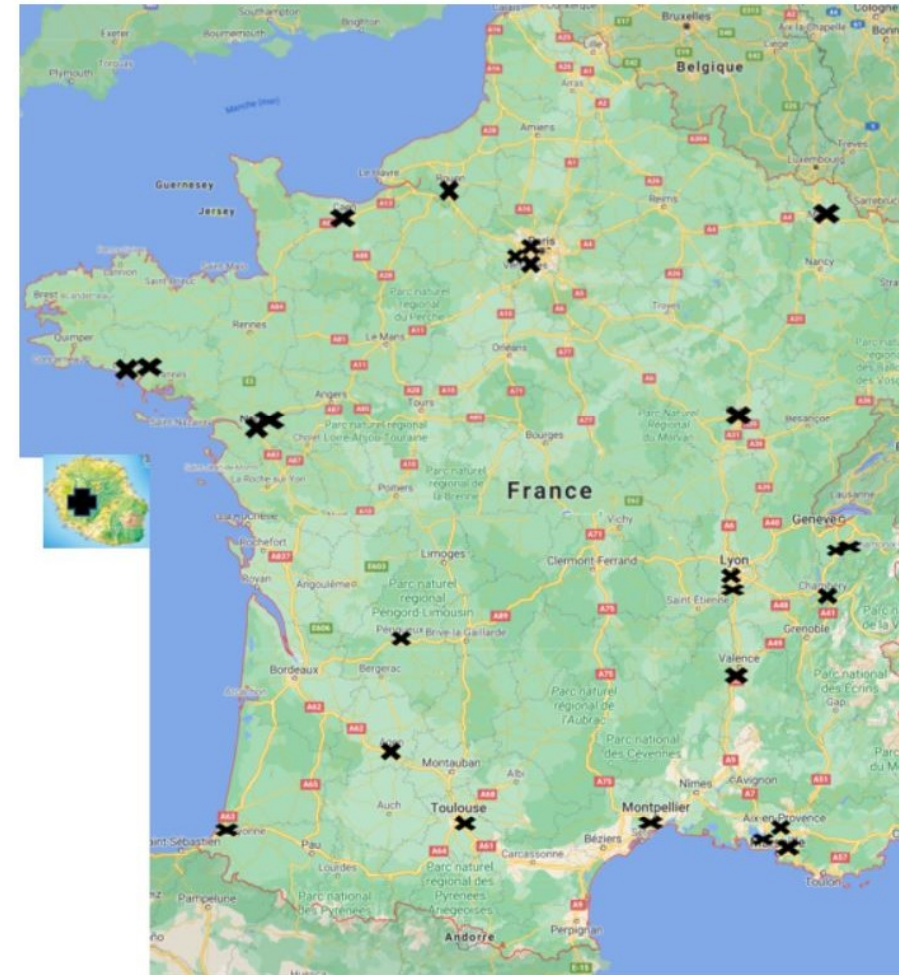


Reassessing the challenges of brachial access

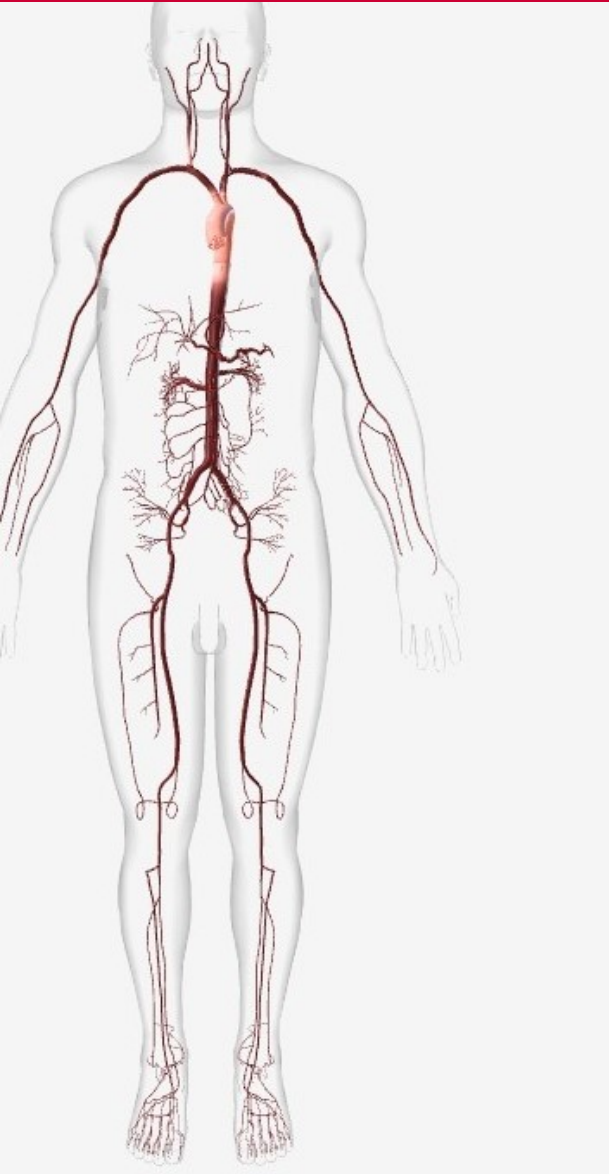
Comparing open versus echo guided percutaneous access

Prospective multi-center study conducted

in 14 French private hospitals

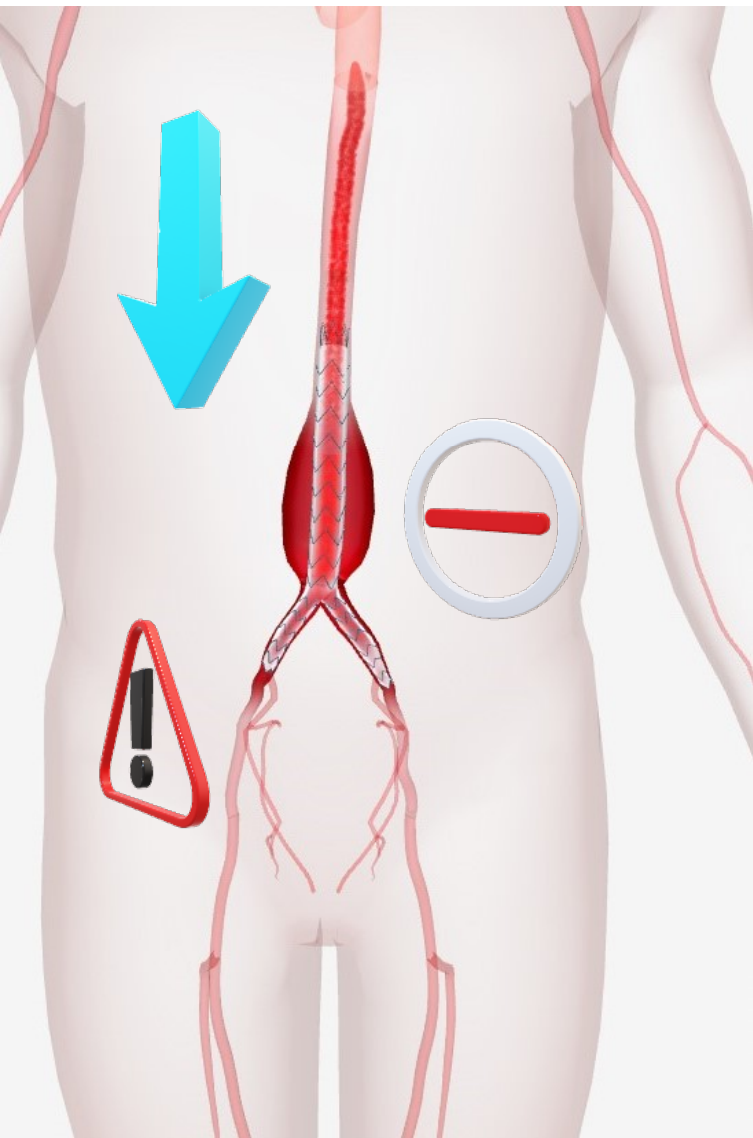


Methods



- **252 patients requiring brachial artery access**
(18 months)
70 yrs old (31-97), H/M = 178/74
- **353 treated arteries**
= Multiple arteries in 101 cases (40%)
 - 35 Supra aortic trunks
 - 40 visceral arteries
 - 130 aortoiliac axes
 - 148 femoropopliteal axes
- **Operator's choice between**
 - surgical access
 - catheter-guided percutaneous access

Brachial indications



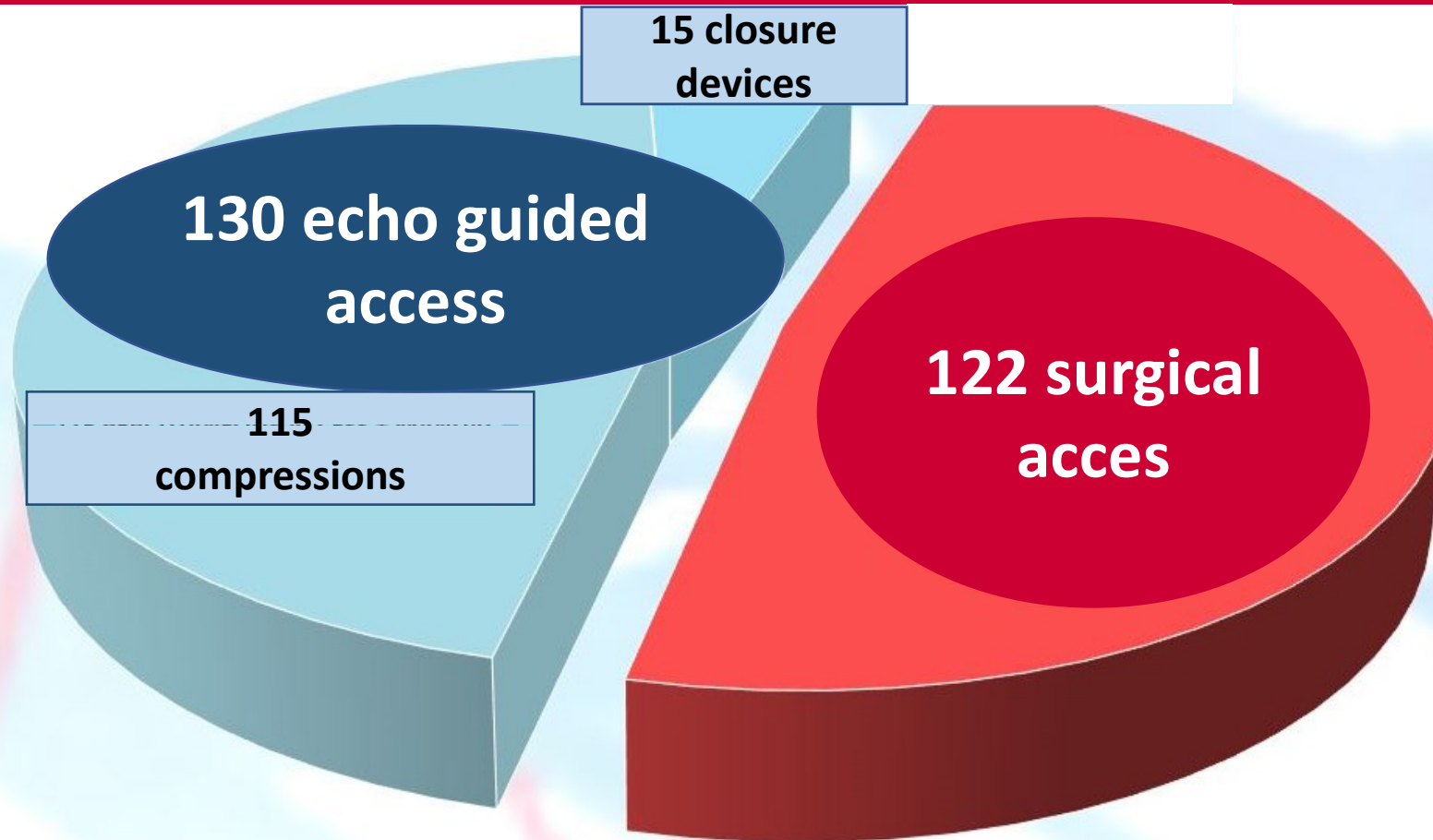
Multiple indications in 40% of cases

- 139 ergonomic reasons
- 128 hostile and pathologic groins
- 70 impossible cross over
- 82 bilateral treatments of lower limbs

41 cases (16,3%) required associated femoral approach



Brachial access



Inserted sheaths ranged from 4 to 12 Frenchs (mean size 6,1Fr)

Results



Technical success in 245 patients (97,2%)

Average length of stay = 2.3 days (0-20)

41 outpatient procedures (16,3%)

Average operative time = 80 minutes (17-200)

Average irradiation = 134.02 Gy.cm² (0.6-888)

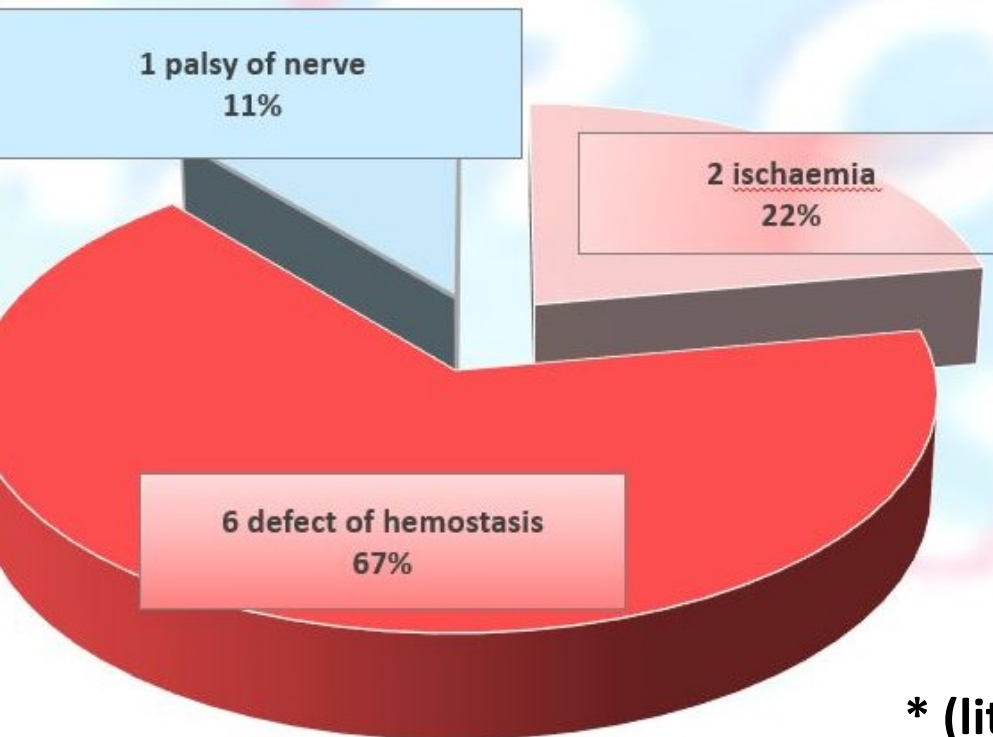


Complications

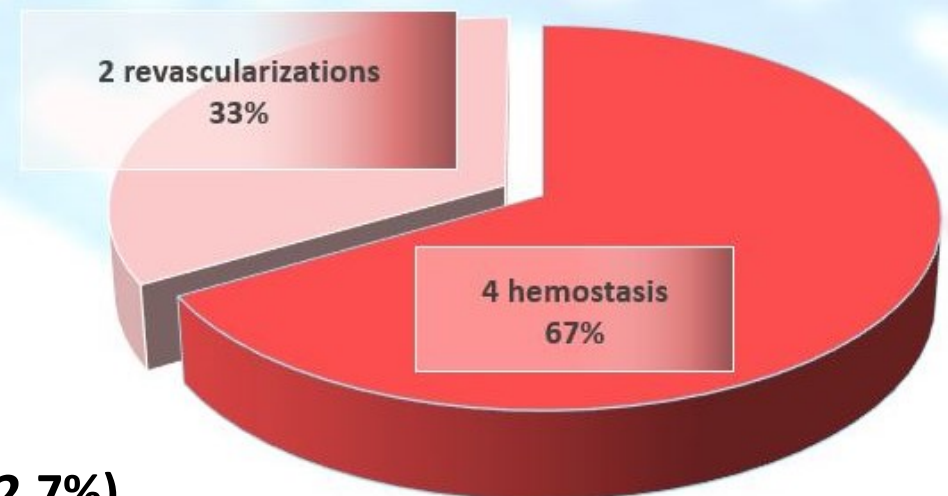


No systemic complication

252 locoregional complications
3,5%*



6/252 surgical repairs
2%



* (litterature 12,7%)

Brachial Complications

Open versus percutaneous



Complications

9/252 (3,2%)*

9/9 6 Fr

*Surgical
access*

**1/122
(0.8%)***

*Echoguided
percutaneous
access*

8/130 (6.15%)*

χ^2
 $p = 0.021$

Compression
6/115 (5,2%)

Closure dev
2/15 (13,3%)

$p = 0,046$

$p = 0,219$

* (litterature 12,7%)

Conclusions/ Brachial access



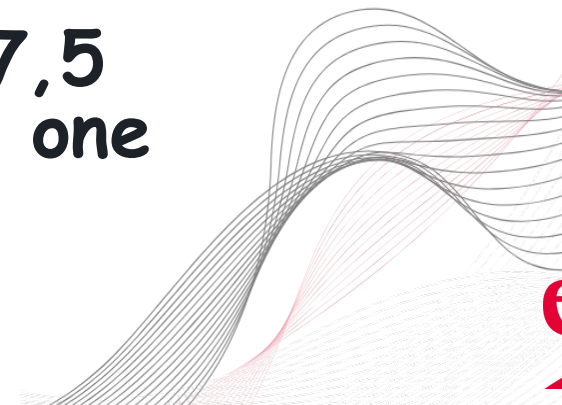
allowing larger sheaths and shorter supports than radial access

Brachial is a safe alternative or help to the transfemoral access

Our complication rate was low and only locoregional

Complication rate after open surgical access is 7,5 times lower than after echoguided percutaneous one

This should be considered to enhance technical success of endovascular procedures



Thank you to every investigators



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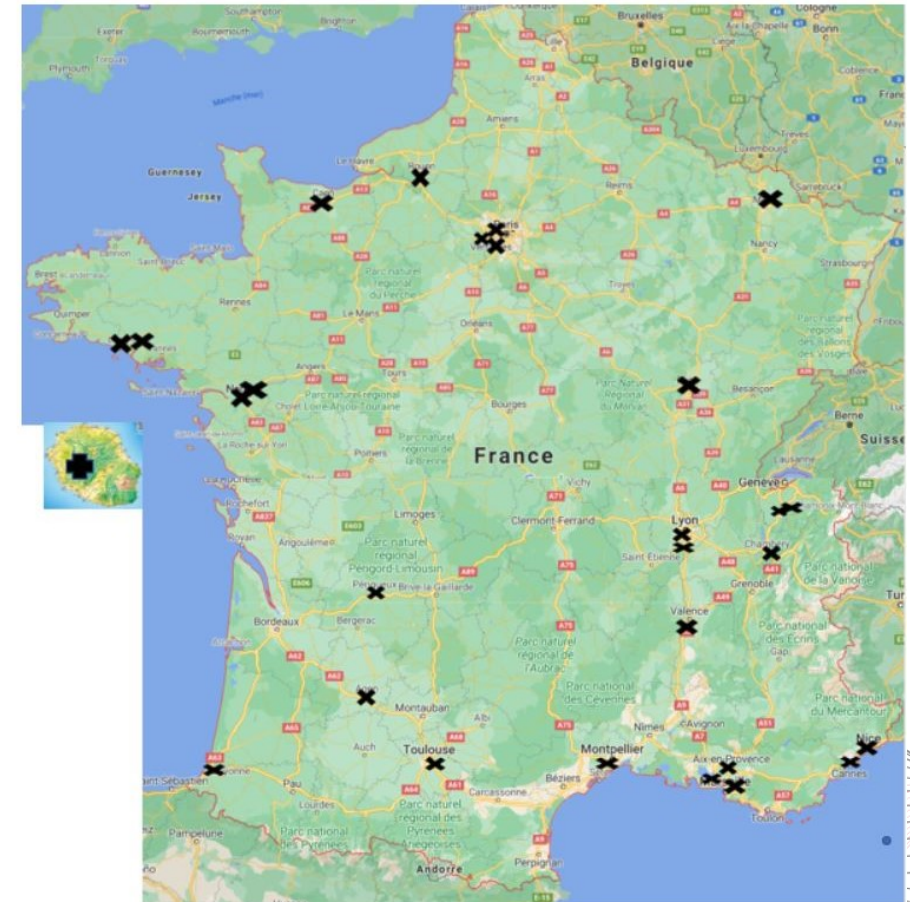
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Thank you for your attention



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