

Sindrome CLAPO

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CLAPO

C

Capillary Malformation (CM) of the Lower Lip

L

Lymphatic Malformation (LM) of faces and Neck

A

Asimmetry

PO

Partially/generalized Overgrowth





ISSVA classification for vascular anomalies ©

(Approved at the 20th ISSVA Workshop, Melbourne, April 2014, last revision May 2018)

This classification is intended to evolve as our understanding of the biology and genetics of vascular malformations and tumors continues to grow

| Vascular malformations associated with other anomalies | | |
|--|--|-------------|
| Klippel-Trenaunay syndrome: * | CM + VM +/- LM + limb overgrowth | PIK3CA |
| Parkes Weber syndrome: | CM + AVF + limb overgrowth | RASA1 |
| Servelle-Martorell syndrome: | limb VM + bone undergrowth | |
| Sturge-Weber syndrome: | facial + leptomeningeal CM + eye anomalies +/- bone and/or soft tissue overgrowth | GNAQ |
| Limb CM + congenital non-progressive limb overgrowth | | GNA11 |
| Maffucci syndrome: | VM +/- spindle-cell hemangioma + enchondroma | IDH1 / IDH2 |
| Macrocephaly - CM (M-CM / MCAP) * | | PIK3CA |
| Microcephaly - CM (MICCAP) | | STAMPB |
| CLOVES syndrome: * | LM + VM + CM +/- AVM + lipomatous overgrowth | PICK3CA |
| Proteus syndrome: | CM, VM and/or LM + asymmetrical somatic overgrowth | AKT1 |
| Bannayan-Riley-Ruvalcaba sd: | AVM + VM + macrocephaly, lipomatous overgrowth | PTEN |
| CLAPO syndrome: * | lower lip CM + face and neck LM + asymmetry and partial/generalized overgrowth | PIK3CA |

associated with
other anomalies.

[See list](#)



Unknown Etiology

- OSCVA - *overgrowth syndromes with complex vascular anomalies*.
- 2018 Rodriguez – Laguna: Somatic activating PIK3CA mutations → PROS - *PIK3CA overgrowth spectrum*

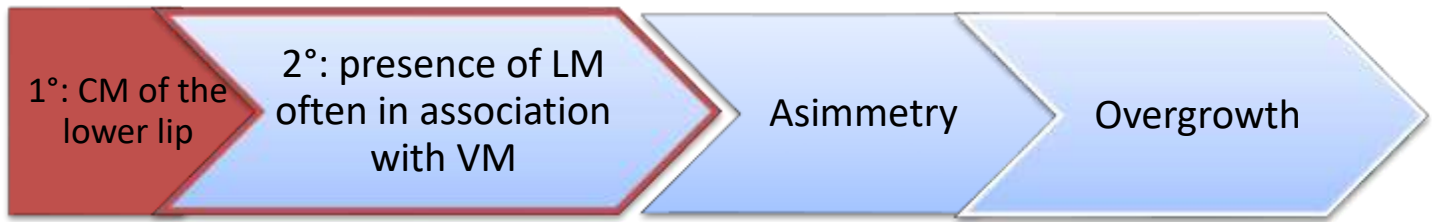
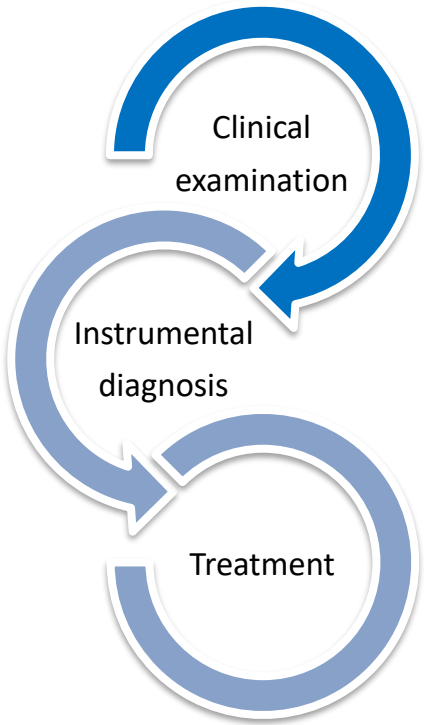
8 cases reported in scientific literature

- 2008 Lopez- Gutierrez et al.: first 6 cases
- 2016 Kramer: 1 case
- 2018 Flores-Terry: 1 case

Spectrum of abnormalities in CLAPO SYndr.

- 2018 Roè-Crespo: 1 case
- 2018 Gonzalez-Hermosa: 1 case







CM of the lower lip:

- always present at birth
- present in the midline
- with a predominant brown/purple color
- with a symmetrical distribution
- ranging from 2 to 11 cm
- with well-defined borders in several patients
- often affecting the portion of the skin under the lip or the intra-oral mucosa



LM involving lip, oral mucosa, neck, and tongue:

- Often associated with VM
- Not always evident at birth
- Complaints and morbidity included bleeding, infection, swelling, vesicle formation and malocclusion.



Asimmetry:

- Face or limbs

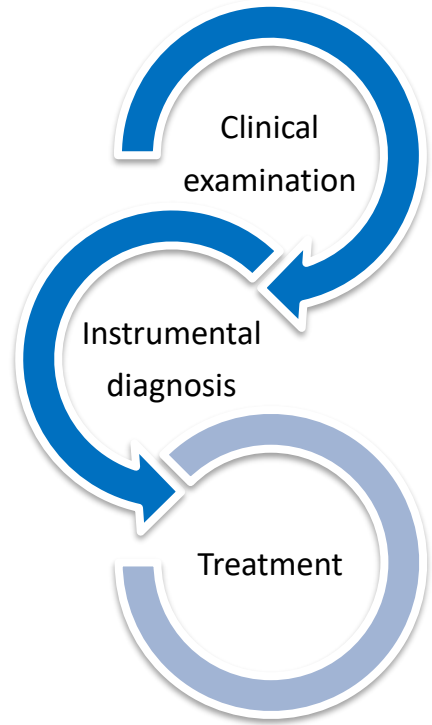
Overgrowth:

- not always evident from the beginning
- Partially /generalized

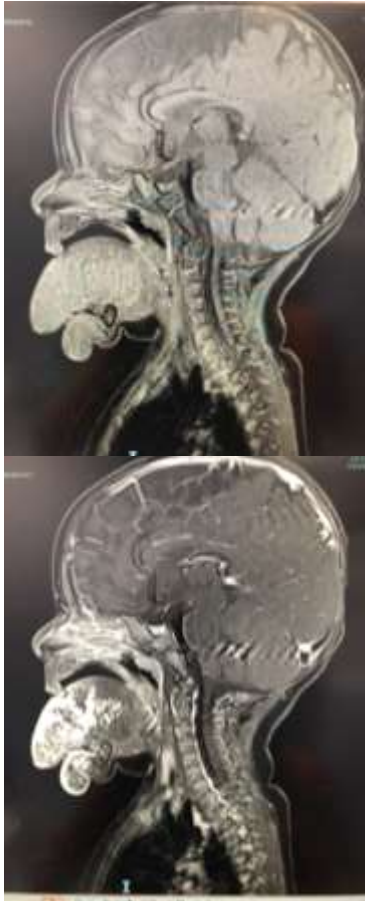
*Flores-Terry MÁ, Zamberk-Majlis P, Cortina-de la Calle MP, García-Arpa M. CLAPO Syndrome. Actas Dermosifiliogr. 2018;109:180.

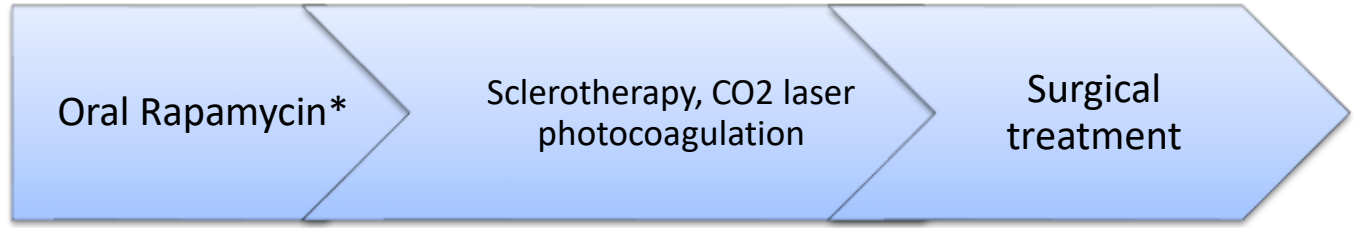
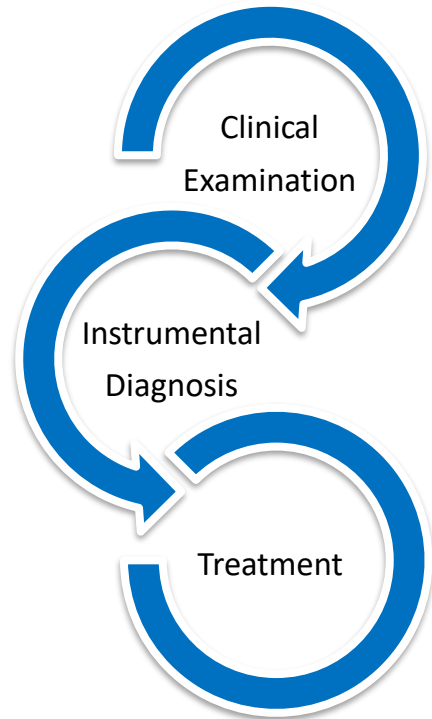
* González-Hermosa MR, Guerra E, Tuduri I, Vicente I, López-Almaraz R. CLAPO syndrome: Effective response to treatment with oral rapamycin. Dermatologic Therapy. 2019;32:e12991





→ MRI of overgrowth segments
and/or CM, LM, VM
→ Doppler Ultrasound





* González-Hermosa MR, Guerra E, Tuduri I, Vicente I, López-Almaraz R. CLAPO syndrome: Effective response to treatment with oral rapamycin. *Dermatologic Therapy*. 2019;32:e12991

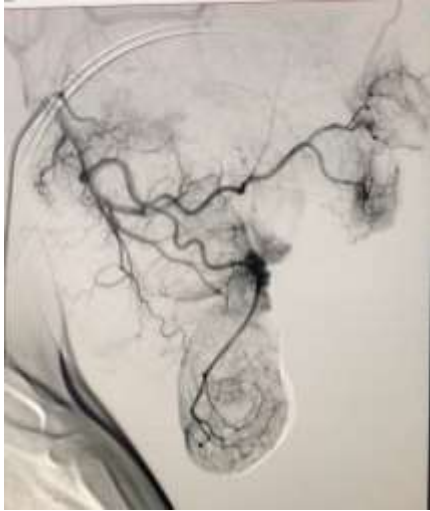




Clinical Case











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