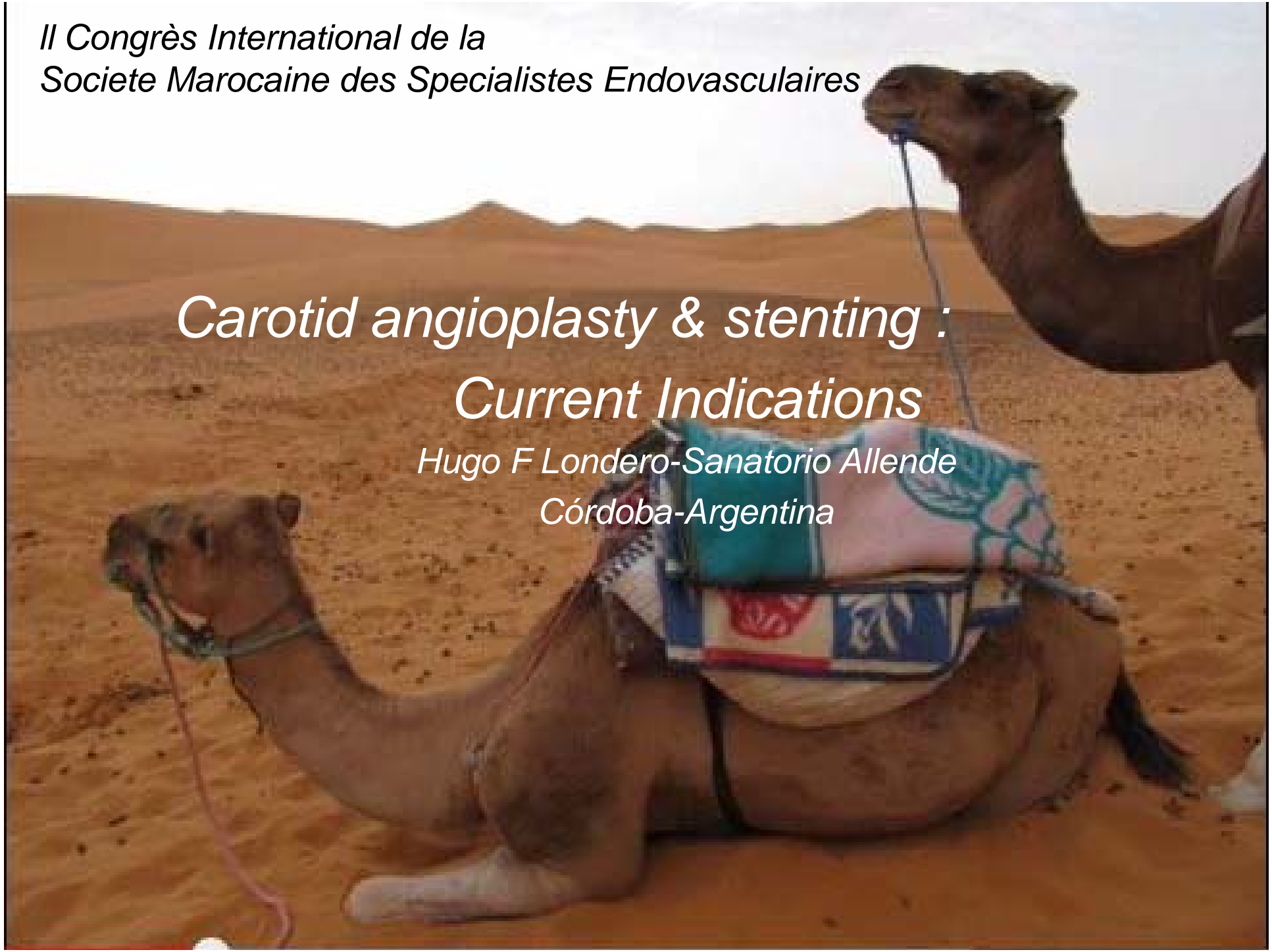


*II Congrès International de la
Societe Marocaine des Specialistes Endovasculaires*

*Carotid angioplasty & stenting :
Current Indications*

*Hugo F Londero-Sanatorio Allende
Córdoba-Argentina*



Disclosure Statement of Financial Interest

I, Hugo Londero MD, DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

Carotid angioplasty & stenting : Current Indications:

- *European & American Guidelines*
- *CAS current status*
- *Lessons learned in the last 20 years*
- *My personal opinion*

*ESC Guidelines on the diagnosis and treatment of
peripheral artery diseases*

(European Heart Journal 2011;32:2851-2906)

Preamble:

*Guidelines and recommendations should help the
physicians to make decisions in their daily practice.
However, the final decisions concerning an individual
patient must be made by the responsible physician(s).*

European and American Guidelines Summary

	Asymptomatics	Symptomatics		
		50-69%	70-99%	High Risk
ESC	IIb/B	IIb/B	IIb/B	IIa/B
ACC/AHA/etc.	IIb/B	I/B	I/B	

Classes of Recommendations:

Class I: Is recommended/indicated

Class IIa: Is probably recommended/indicated

Class IIb: My be considered/reasonable

Class III: Potentially dangerous

European and American Guidelines Summary: CEA vs CAS

		Asymptomatics		Symptomatics		
				70-99%	50.69%	High Risk
ESC	CEA	IIb/B	I/A	IIa/A		
	CAS	IIb/B	IIb/B	IIb/B	IIa/B	
AHA/ ACC	CEA	IIa/A	I/A	I/A		
	CAS	IIb/B	I/B	I/B		

Classes of Recommendations:

Class I: Is recommended/indicated

Class IIa: Is probably recommended/indicated

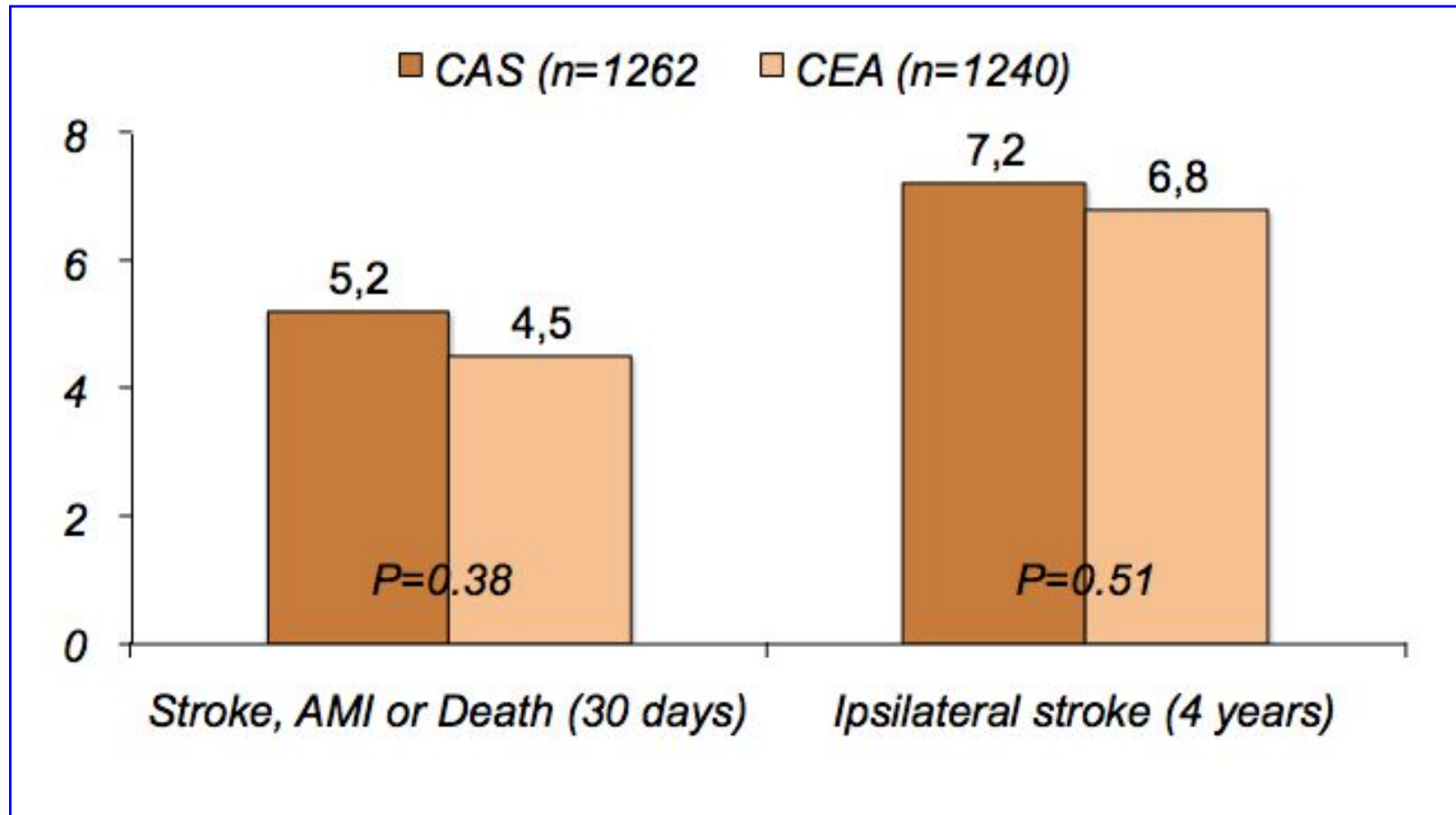
Class IIb: My be considered/reasonable

Class III: Potentially dangerous

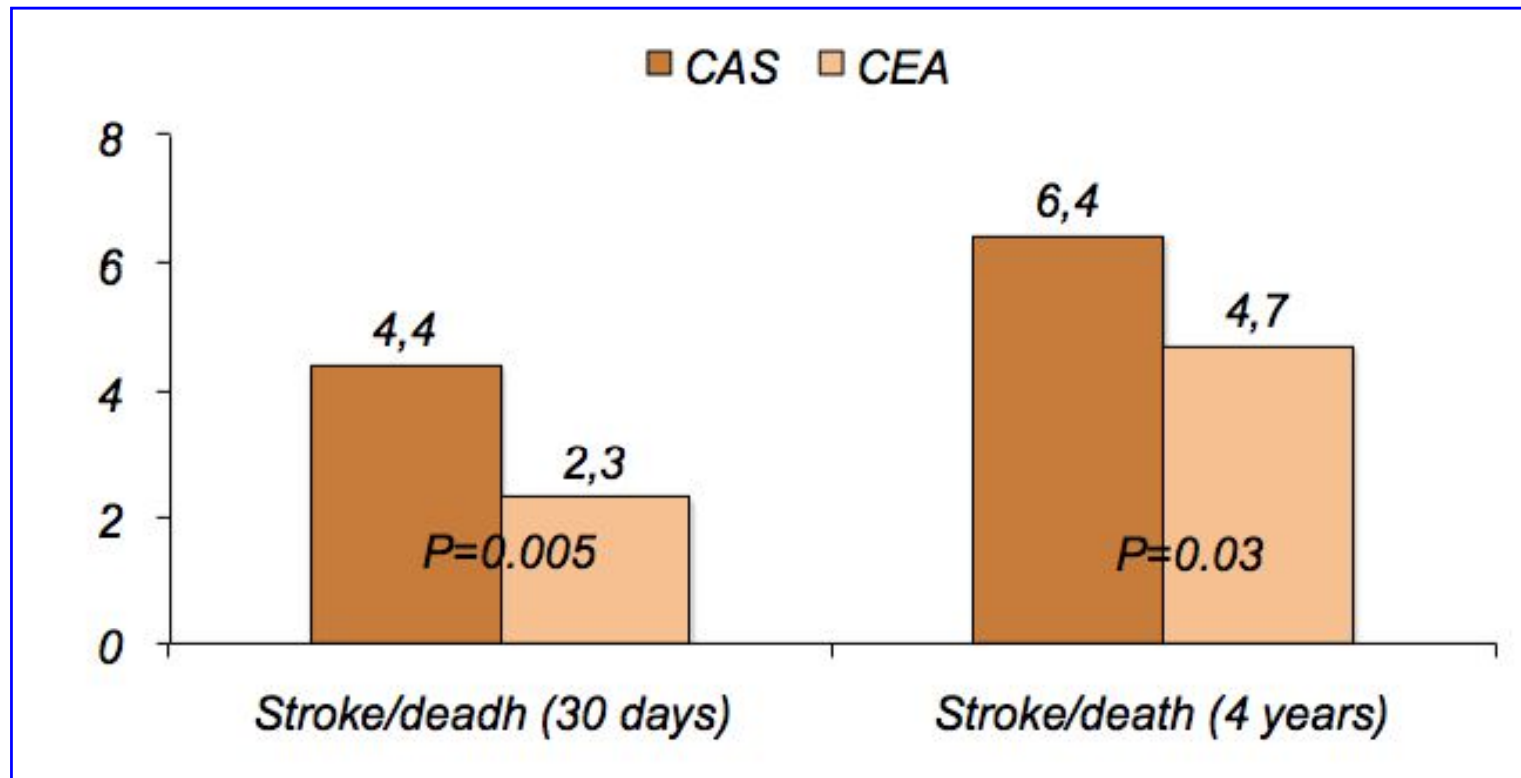
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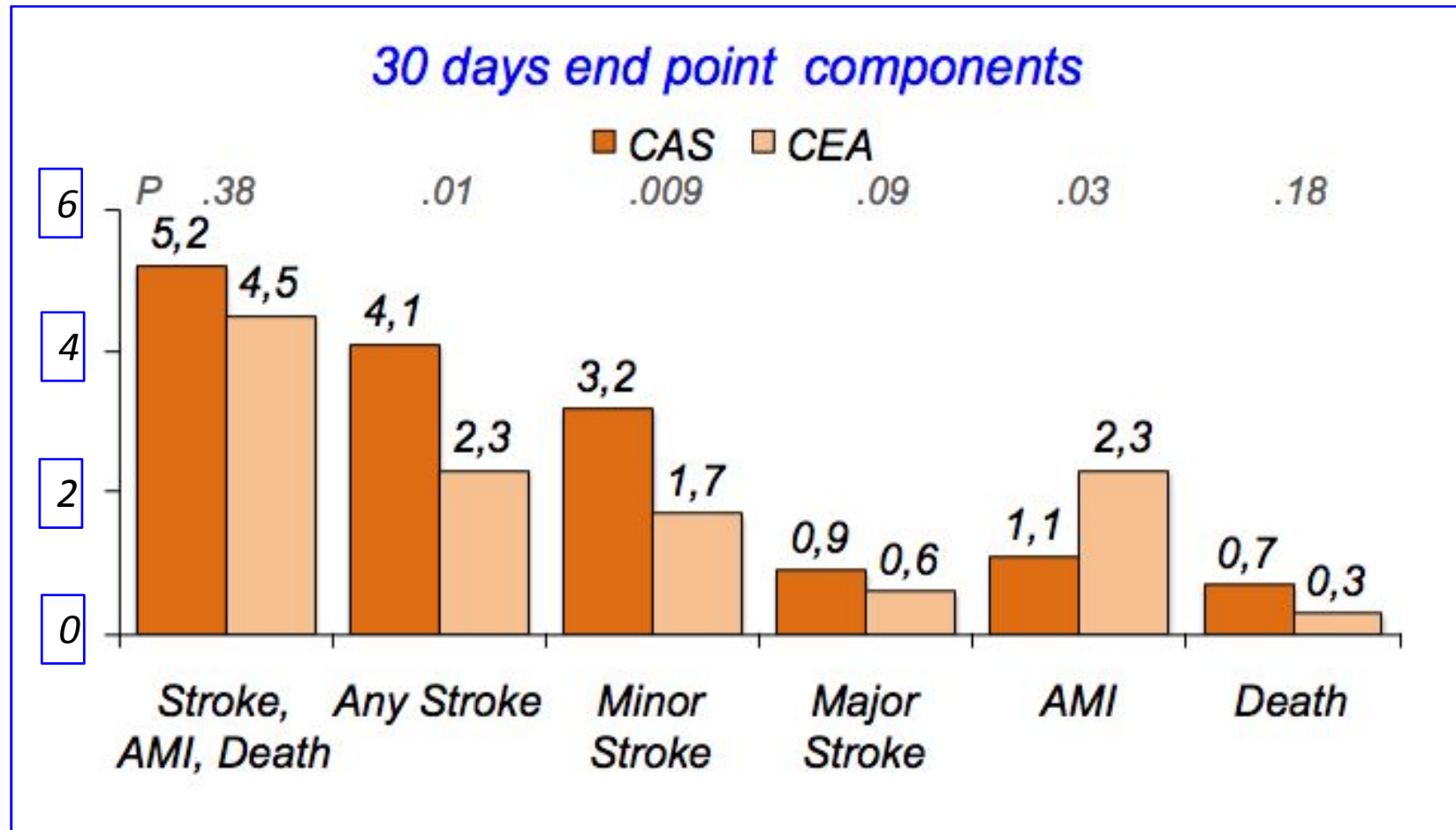
CREST Trial – Stenting versus Endarterectomy for Treatment of Carotid Artery Stenosis (N Engl J Med 2010; 363:11-23)



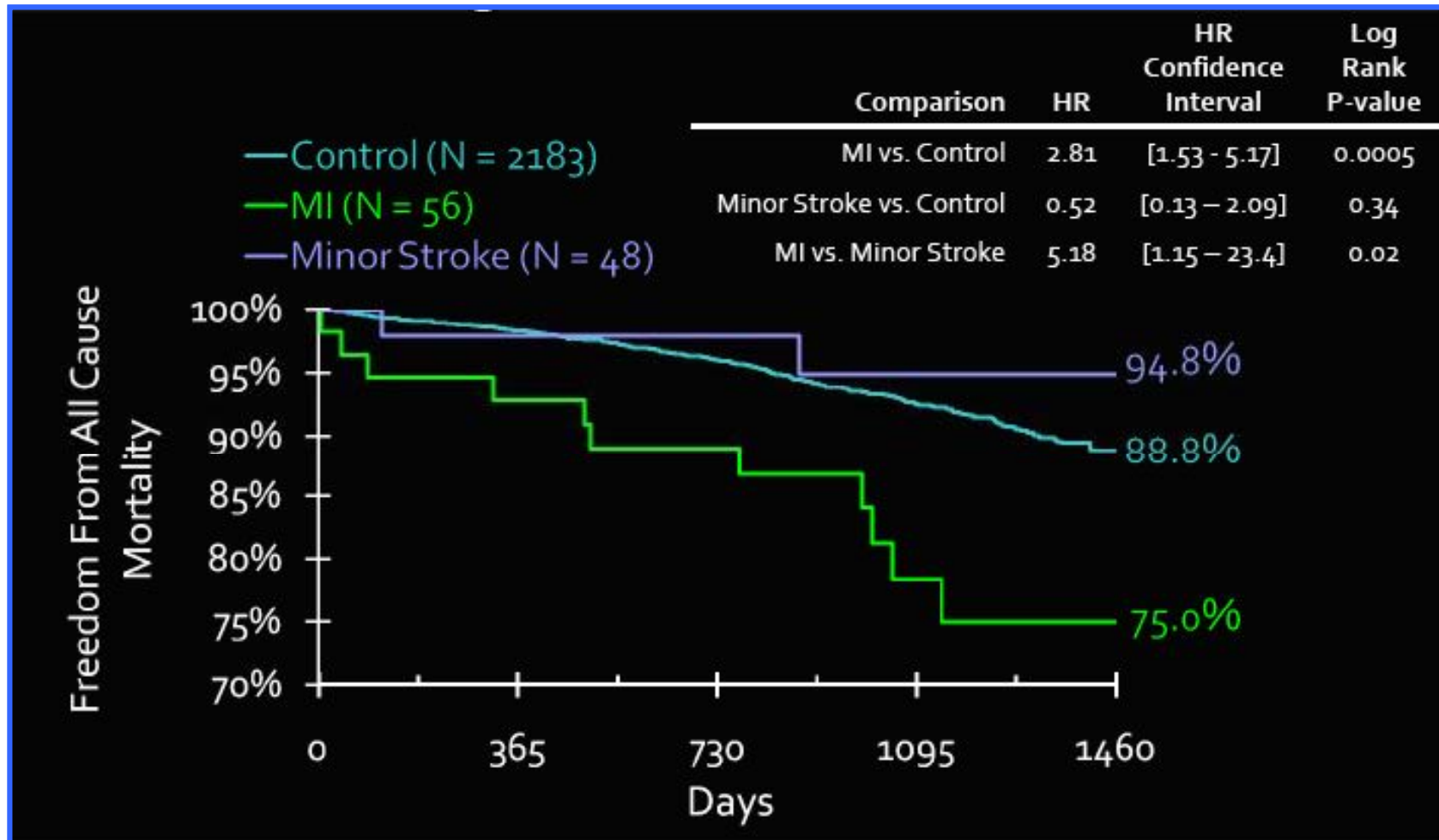
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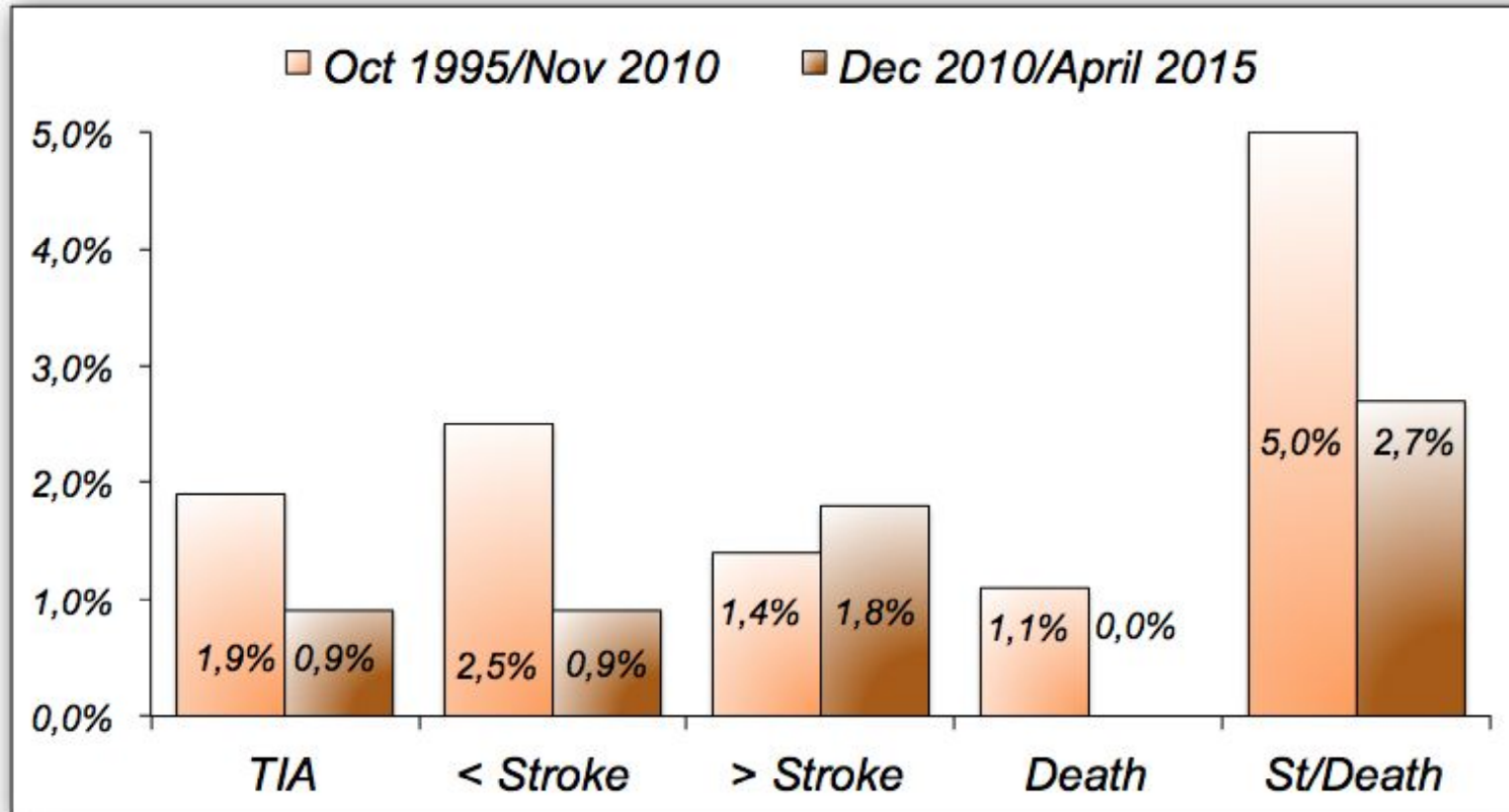
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Carotid Angioplasty - In-Hospital Complications

Oct.1995/Nov.2010(n=356) vs. Dec.2010/April 2015 (n=123)

Sanatorio Allende (1997-2015)-Fundación Favaloro (1995-2000)



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*Carotid Angioplasty: Endovascular procedural risk stratification
(Lessons learned in the last 20 years)*

- *What can we do to obtain better results*
 - *CAS vs. CEA Risk/Benefit evaluation*
 - *Deep patient evaluation before intervention*
 - *Differences in high surgical and endovascular risk*
 - *Anatomical difficulties*
 - *Stents with good coverage*
 - *Cerebral protection*
 - *Increased Team experience*

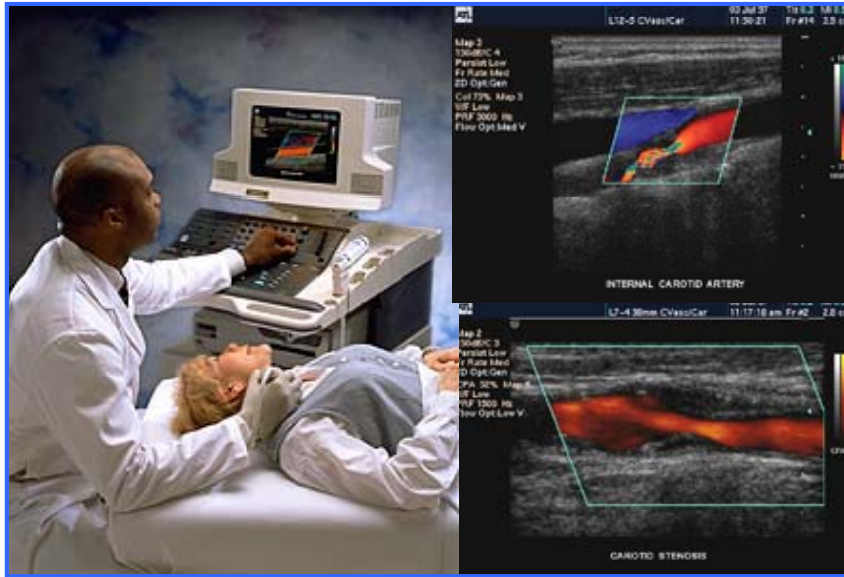
RISK



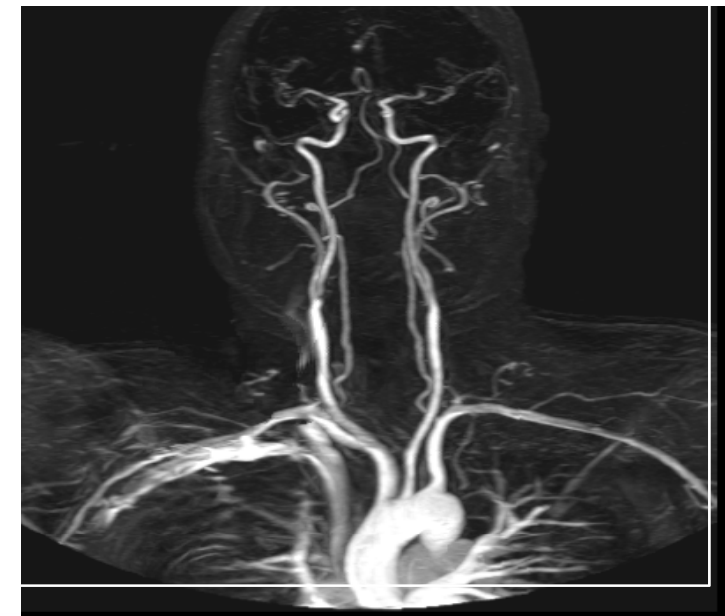
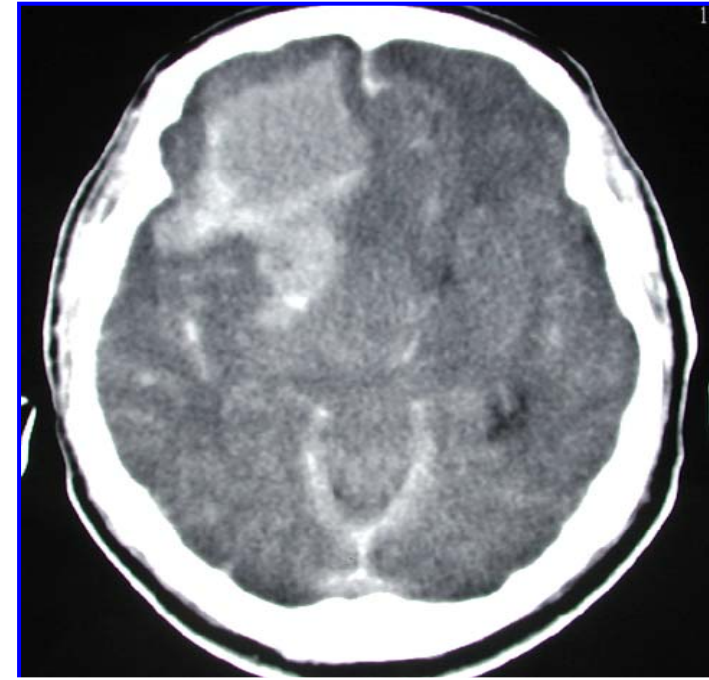
BENEFIT

Deep patient evaluation before intervention:

- *Examination by Neurologist*



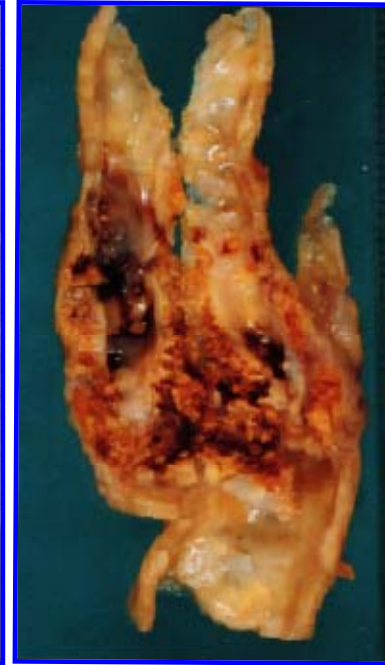
- *Duplex Scan:*
- *Angio MRI-Gadolinium enhanced*
- *Cerebral MRI*
- *MRI Intracranial artery reconstruction*



Differences in high surgical and endovascular risk:



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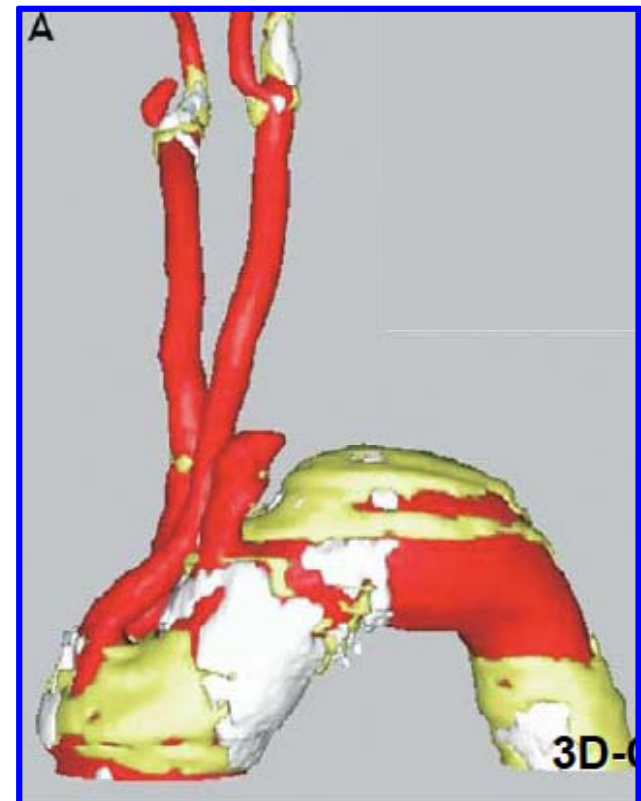
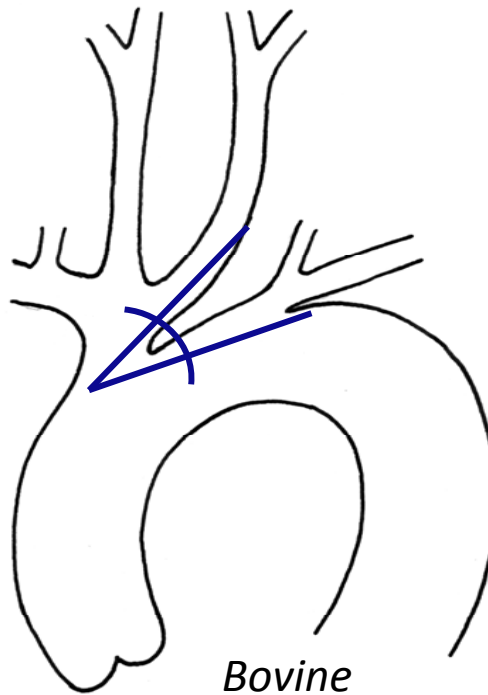
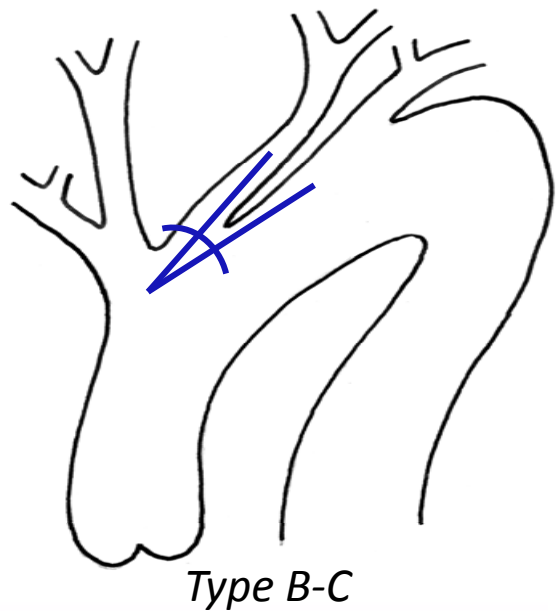
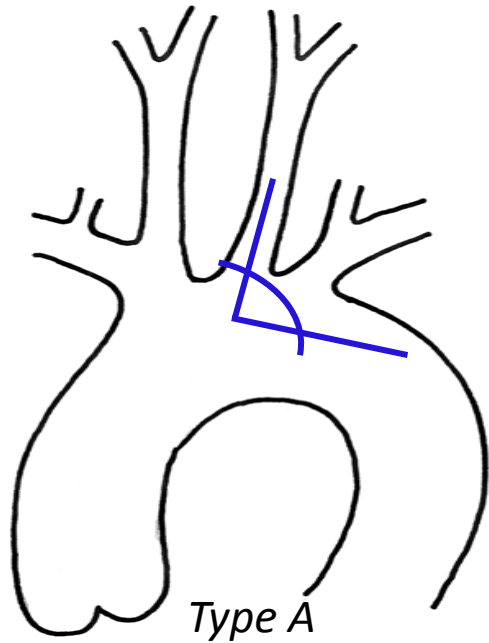


*High Surgical Risk
Co-morbidities – Carotid access*

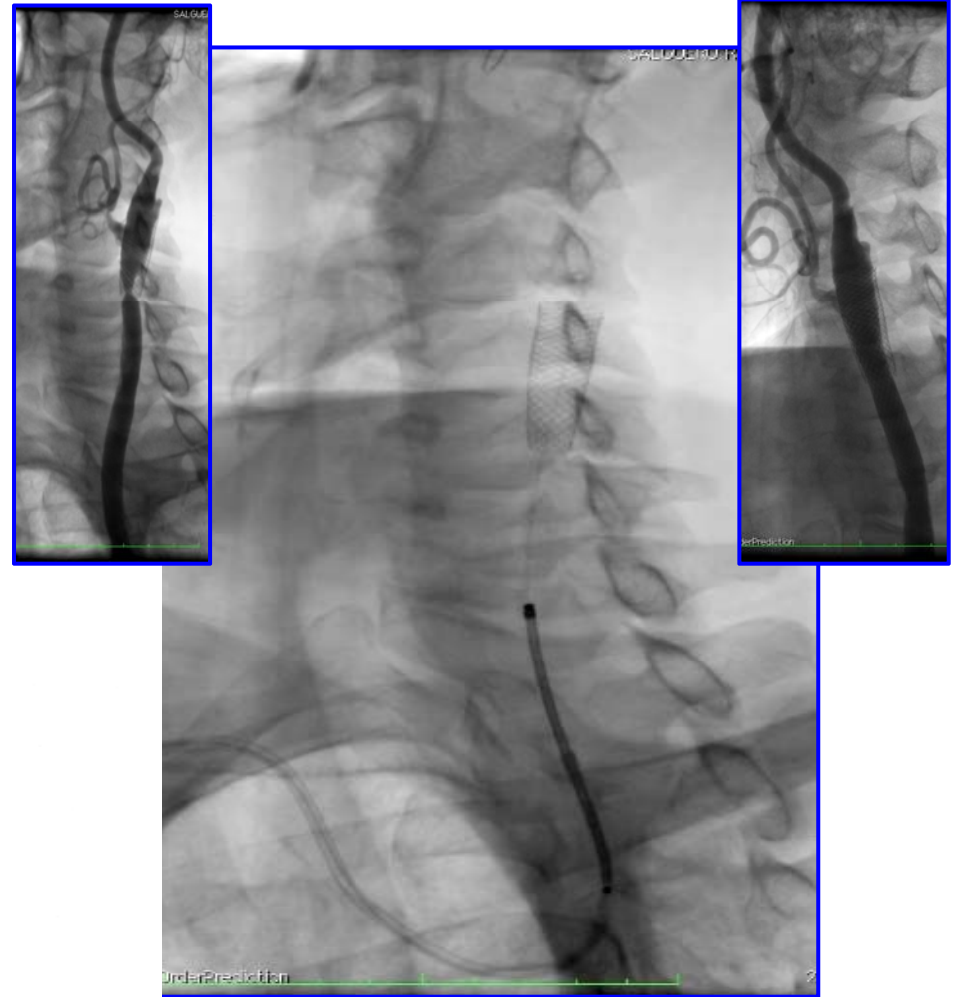
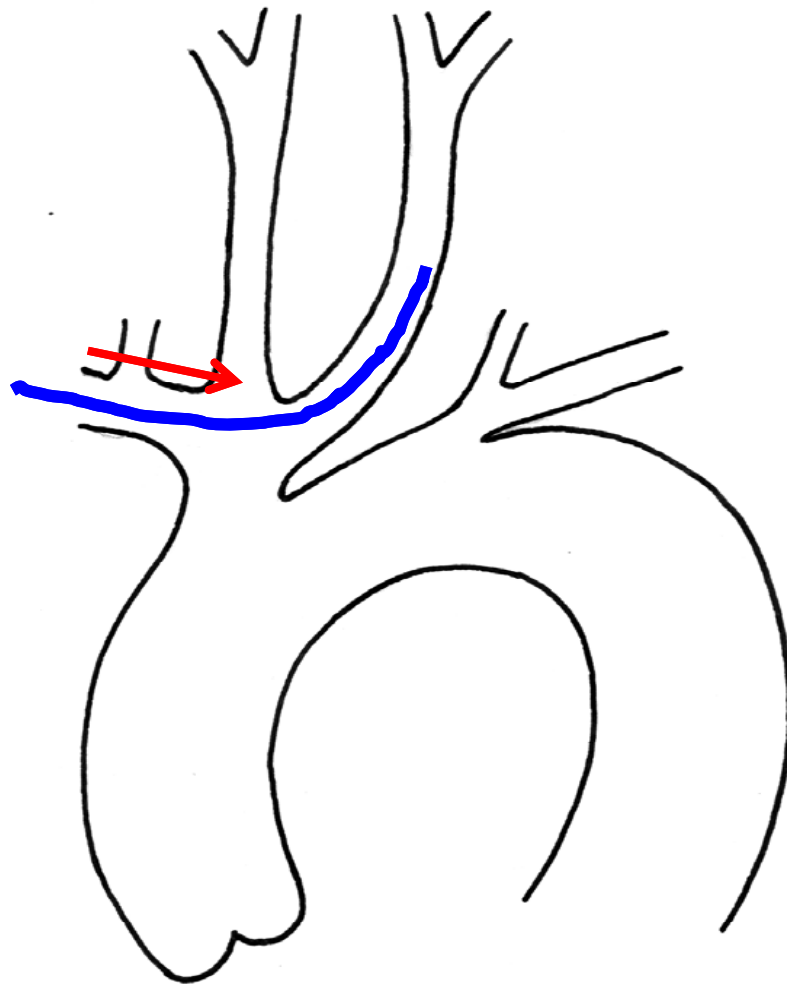
*High CAS Risk
Vascular Anatomic – Lesion Pathology*

Anatomical difficulties:

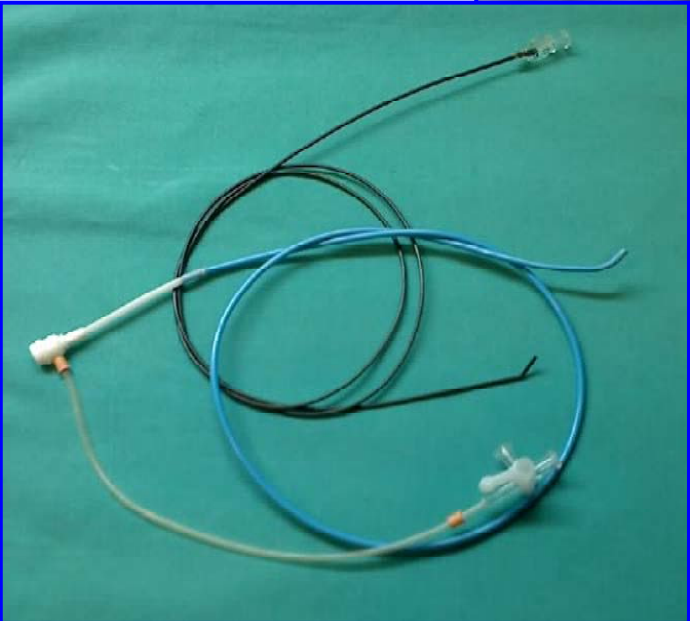
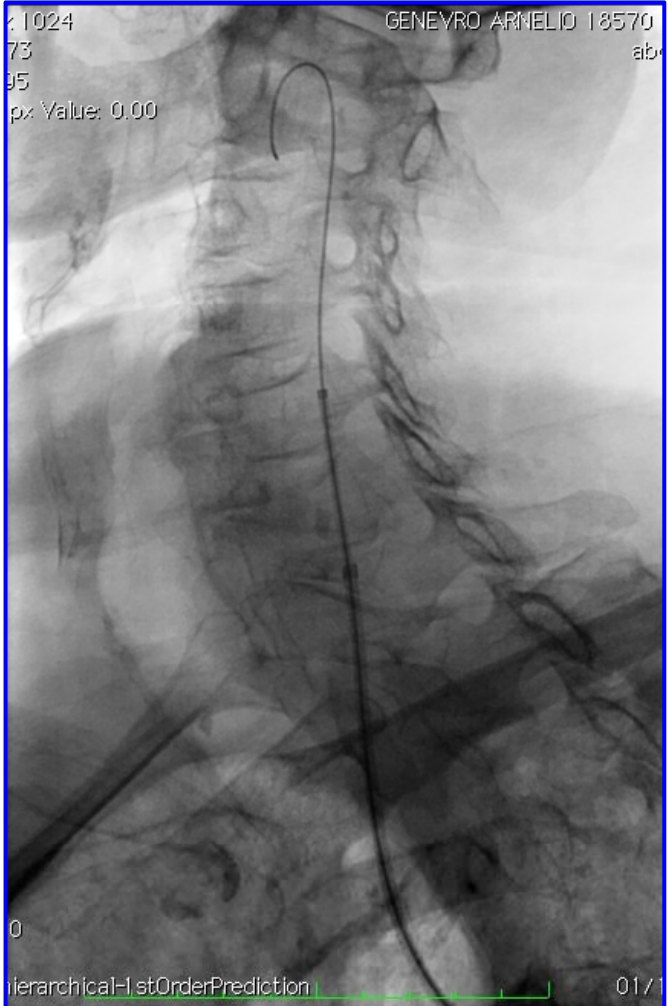
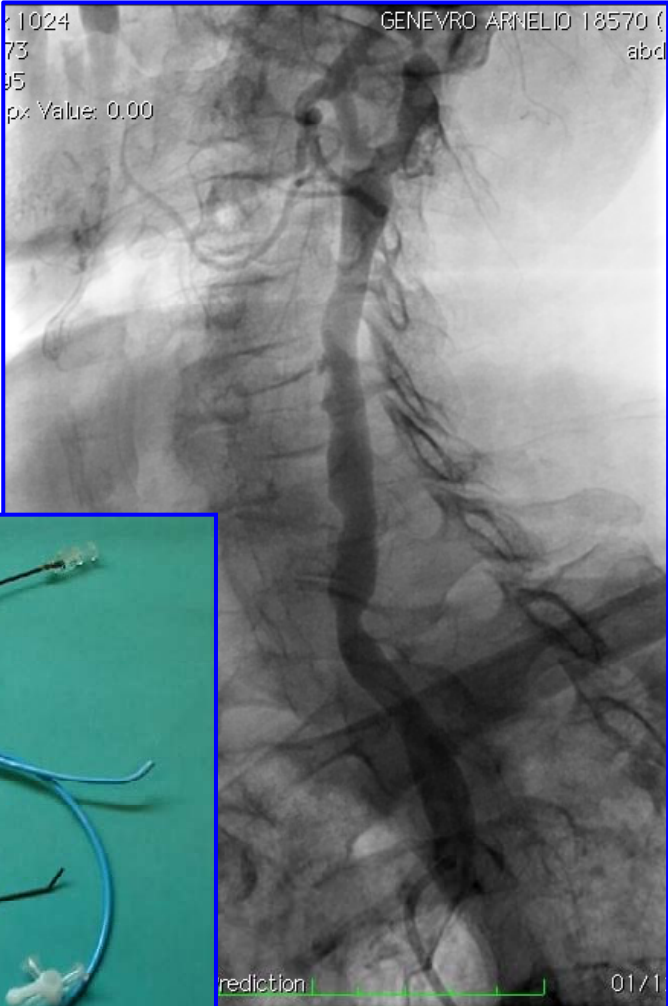
- *Distorted Aortic Arch*
- *Aortic Arch atherosclerosis and calcification*



Distorted Aortic Arch- / atherosclerosis and calcification
Radial or Brachial Approach



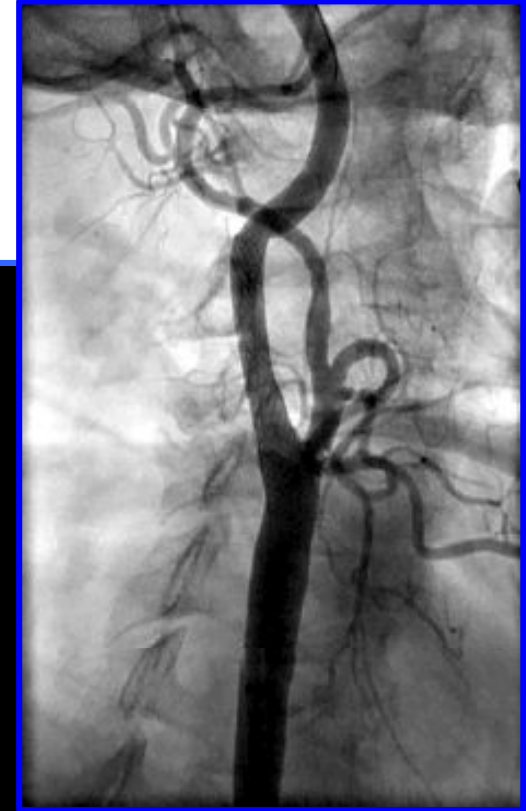
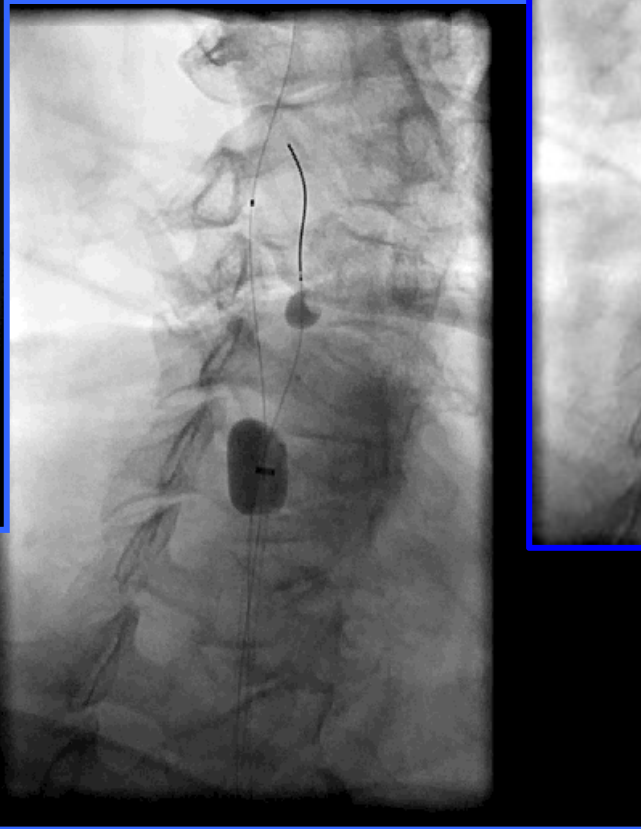
Diffuse Common Carotid Disease
Mother and child to advance the guiding catheter



Common or internal carotid tortuosity or angulations

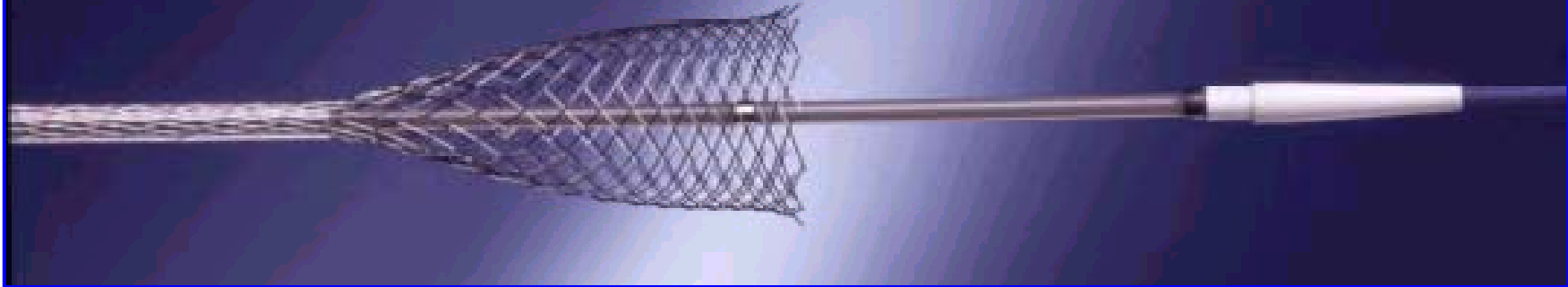


*Ulcerated, polypoids, thrombotic lesions
Proximal Occlusion & Thrombo aspiration*

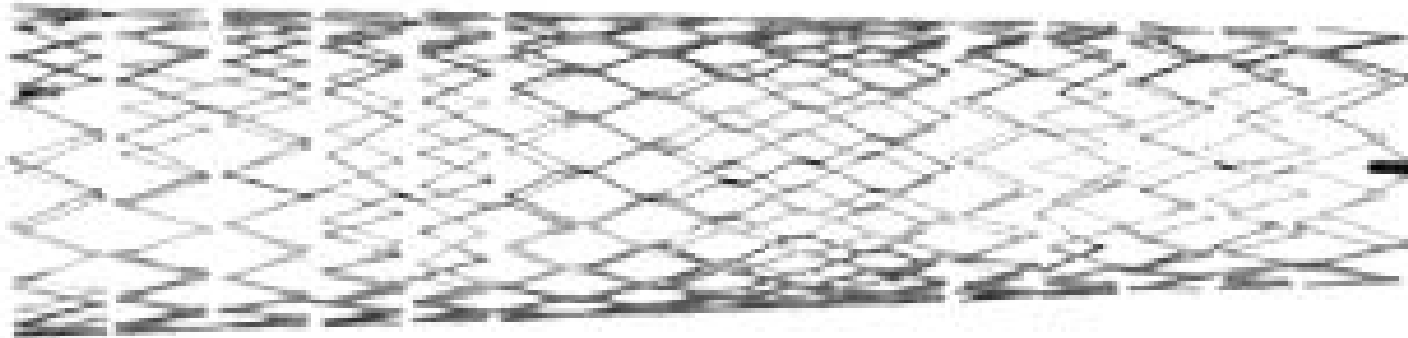


Stents with good coverage:

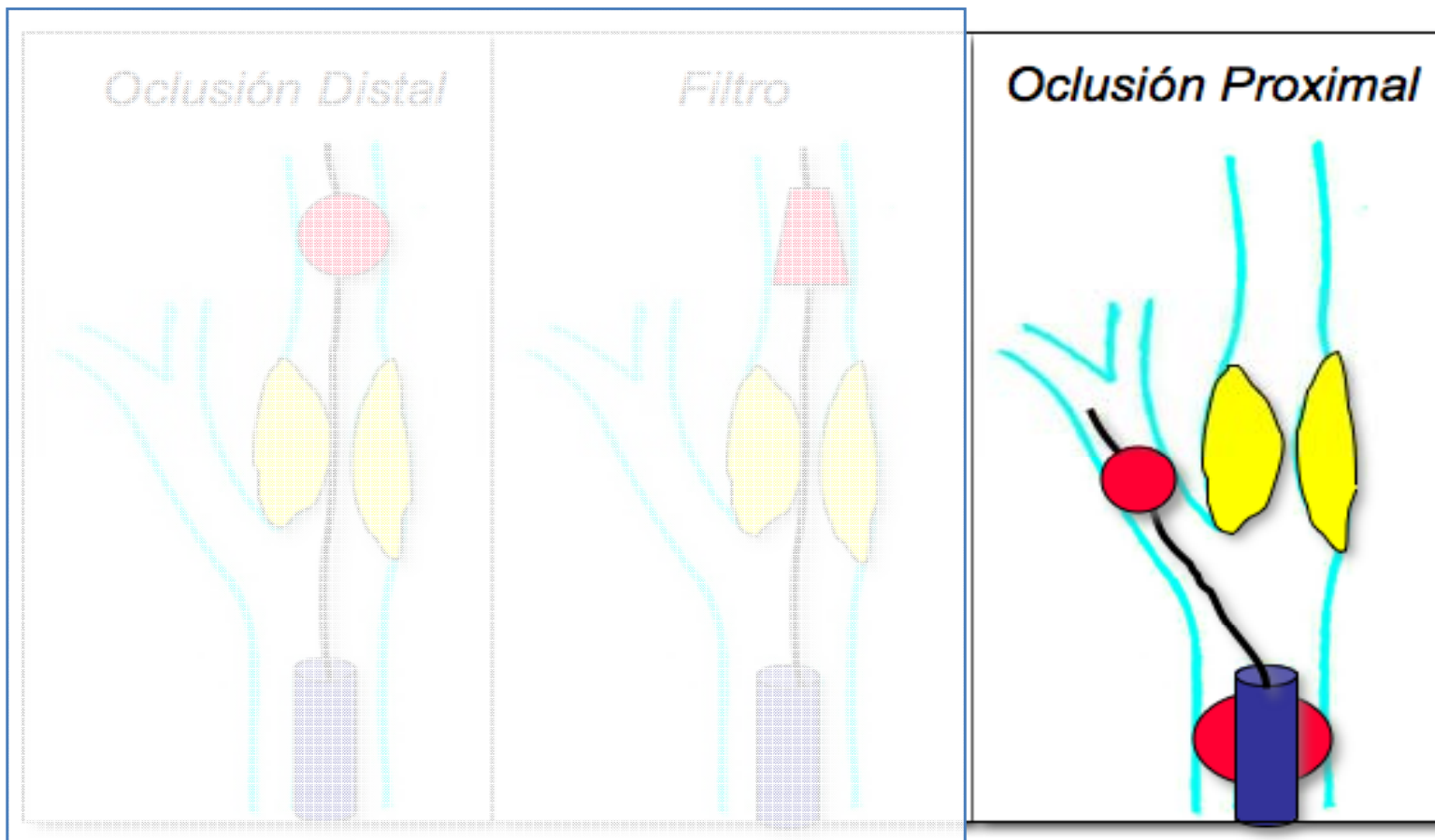
Stainless steel mesh-Wallstent-Boston Sci.



Hybrid Carotid Stent – Cristallo-Invatec-Medtronic



Cerebral Protection:

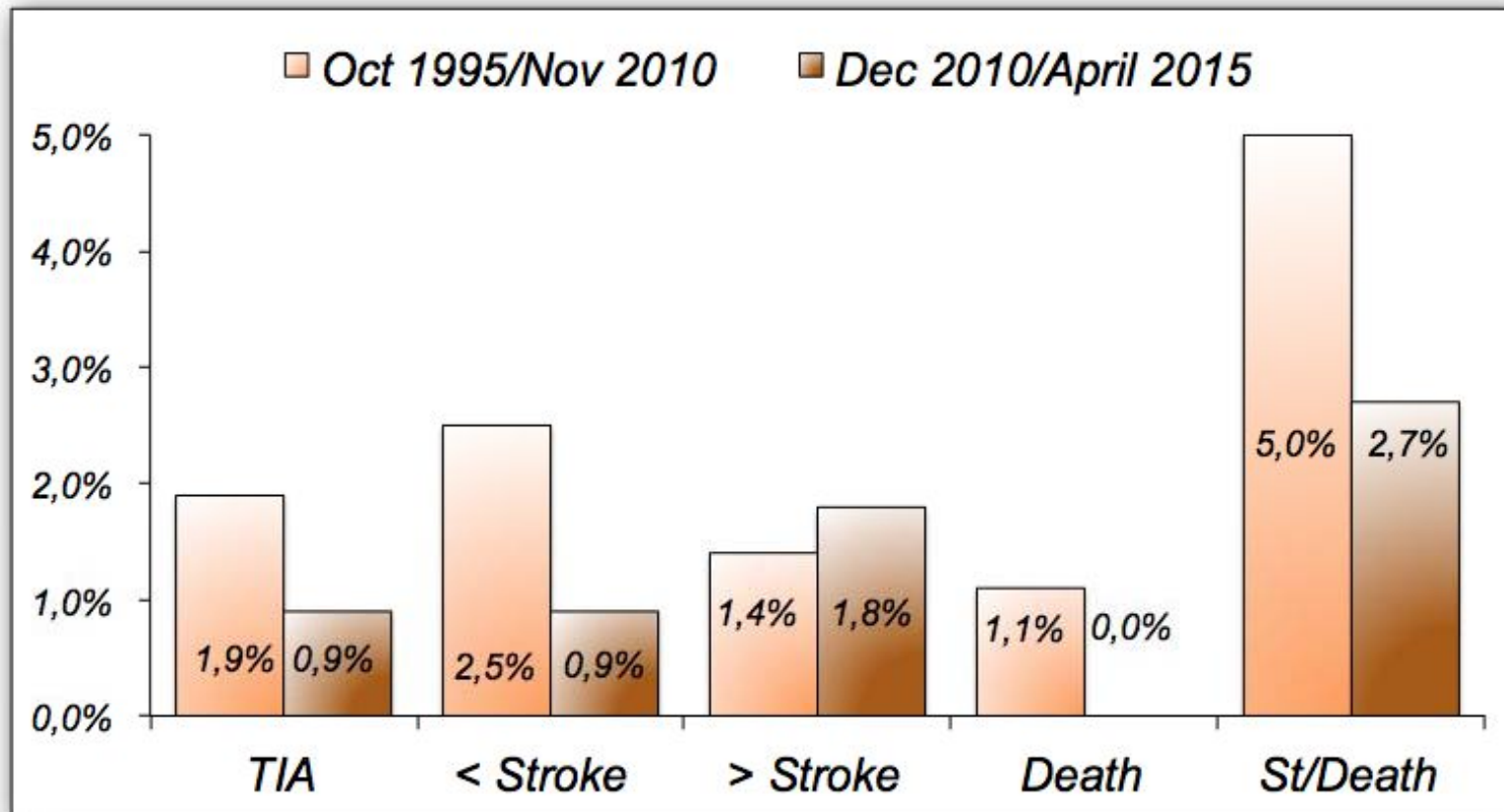


Increased Team Experience

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Carotid angioplasty & stenting : Current Indications:

- *European & American Guidelines*
- *CAS current status*
- *Lessons learned in the last 20 years*
- ***My personal opinion about indications***

Carotid Endarterectomy



Carotid Angioplasty



Carotid angioplasty & stenting : Current Indications:

My personal opinion:

** CAS should be considered an alternative to CEA in Symptomatic patients with lesions $\geq 50\%$*

** Probably could be beneficial in Asymptomatic patients with lesions $\geq 80\%$ or other high risk characteristics.*

** It is necessary a rigorous selection of patients to avoid high risk CAS patients*

** CAS technique is highly operator (skill and experience) and team dependent*

THANK YOU VERY MUCH !!!!!



Conclusiones Finales

- *La evolución del conocimiento y de la técnica han transformado a la Angioplastia Carotídea con Implante de Stents en una alternativa terapéutica a la Endarterectomía Quirúrgica*
- *Esta afirmación es cierta siempre y cuando se cumplan una serie de requisitos relacionados con la selección del paciente, la técnica y el operador*