

# *Development of the Latinamerican Neurosurgery*



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PRESIDENT ( 2006-2008 )  
LATINAMERICAN FEDERATION OF NEUROSURGICAL SOCIETIES-FLANC



## WHAT IS LATINAMERICA?

### América Latina or Latin America (Latinamerica)

Geographically, are almost all the american countries that were ancient colonnies from european countries, where romance languages were spoken , actually

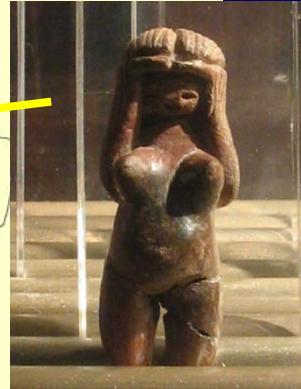
Spain, Portugal and France

| Latinamerica                         |             |                            |                                     |
|--------------------------------------|-------------|----------------------------|-------------------------------------|
| Country                              | Population  | Surface (km <sup>2</sup> ) | Capitol                             |
| <a href="#">Argentina</a>            | 38.592.150  | 2.791.810                  | <a href="#">Buenos Aires</a>        |
| <a href="#">Bolivia</a>              | 9.627.269   | 1.098.581                  | <a href="#">La Paz y Sucre</a>      |
| <a href="#">Brasil</a>               | 188.098.127 | 8.514.877                  | <a href="#">Brasilia</a>            |
| <a href="#">Chile</a>                | 15.980.912  | 756.950                    | <a href="#">Santiago de Chile</a>   |
| <a href="#">Colombia</a>             | 41.460.345  | 1.141.748                  | <a href="#">Bogotá</a>              |
| <a href="#">Costa Rica</a>           | 4.016.173   | 51.100                     | <a href="#">San José</a>            |
| <a href="#">Cuba</a>                 | 11.382.820  | 110.860                    | <a href="#">La Habana</a>           |
| <a href="#">República Dominicana</a> | 8.895.000   | 48.730                     | <a href="#">Santo Domingo</a>       |
| <a href="#">Ecuador</a>              | 13.710.234  | 283.520                    | <a href="#">Quito</a>               |
| <a href="#">El Salvador</a>          | 6.704.932   | 20.041                     | <a href="#">San Salvador</a>        |
| <a href="#">Honduras</a>             | 6.974.504   | 112.492                    | <a href="#">Tegucigalpa</a>         |
| <a href="#">Guatemala</a>            | 14.655.189  | 108.890                    | <a href="#">Ciudad de Guatemala</a> |
| <a href="#">México</a>               | 116.320.115 | 1.972.550                  | <a href="#">Ciudad de México</a>    |
| <a href="#">Nicaragua</a>            | 5.465.100   | 129.494                    | <a href="#">Managua</a>             |
| <a href="#">Panamá</a>               | 3.140.232   | 78.200                     | <a href="#">Ciudad de Panamá</a>    |
| <a href="#">Paraguay</a>             | 6.347.884   | 406.750                    | <a href="#">Asunción</a>            |
| <a href="#">Perú</a>                 | 27.219.264  | 1.285.216                  | <a href="#">Lima</a>                |
| <a href="#">Puerto Rico</a>          | 3.916.632   | 9.104                      | <a href="#">San Juan</a>            |
| <a href="#">Uruguay</a>              | 3.415.920   | 176.220                    | <a href="#">Montevideo</a>          |
| <a href="#">Venezuela</a>            | 25.730.435  | 916.445                    | <a href="#">Caracas</a>             |
| <b>Latinamerica</b>                  | 554.661.445 | 20.010.578                 |                                     |

**A continent with  
20.010.578 km<sup>2</sup>  
where live  
554.661.445  
persons**



# Pre-hispanic Cultures



# **PRE-COLUMBIAN CULTURES ACTION OVER HUMAN BODY**

**First attempts to treat Central Nervous System  
Diseases**

**Mummyfication**

**Shrinkage of human head skin**

**Modification of skull shape**

**Trepanation**

1

# Chinchorro Mummy (Arica-Chile) 7.000-8.000 years before present

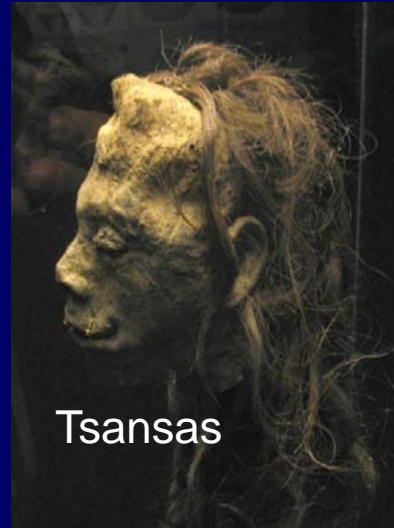
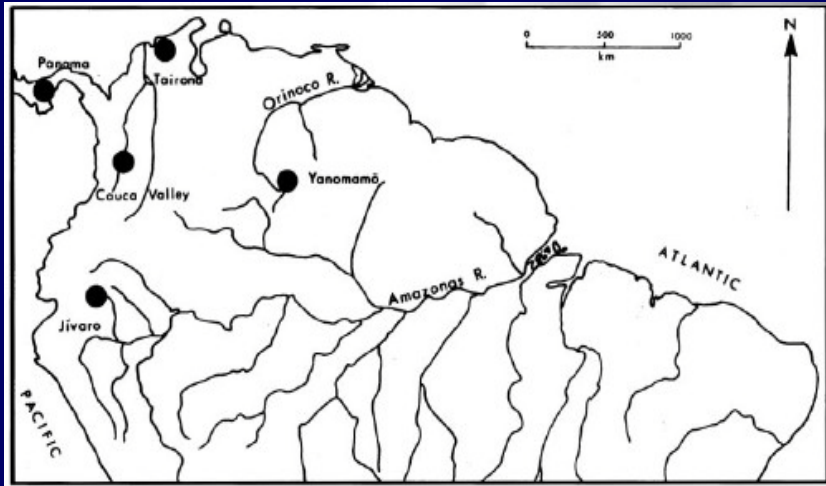
## Andes del Sur

AGUADA  
ALAMITO  
ARCAICO  
ARICA  
CHINCHORRO  
CIÉNAGA  
PICA  
CONDORHUASI  
HORIZONTE INKA  
HORIZONTE TIWANAKU  
DIAGUITA  
LLOLLEO  
MAPUCHE  
PITRÉN  
SAN PEDRO  
SANTA MARÍA

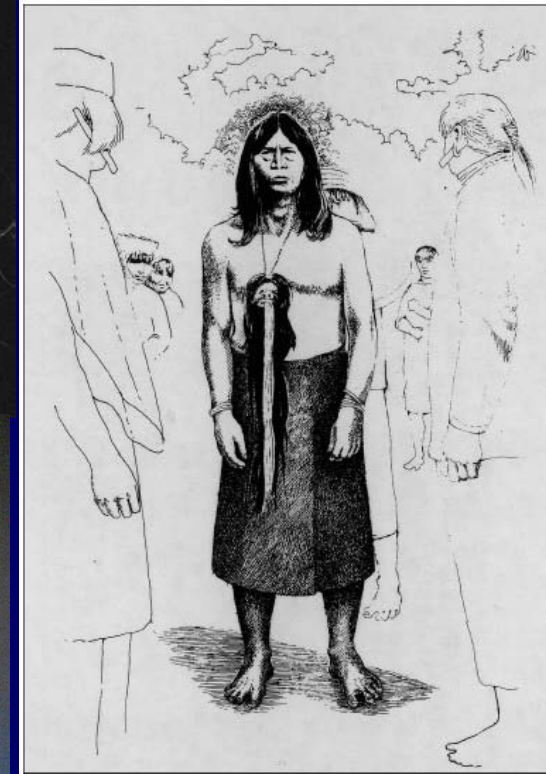


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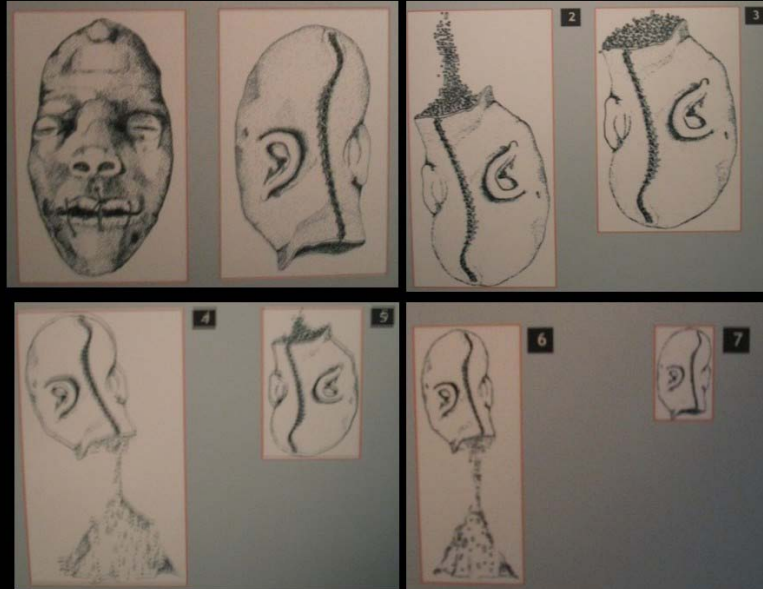
# Shrinkage of human head skin (until beginning of XX century)



Tsansas



Jíbaro-Shuar tribe  
(actual territory of  
Ecuador)

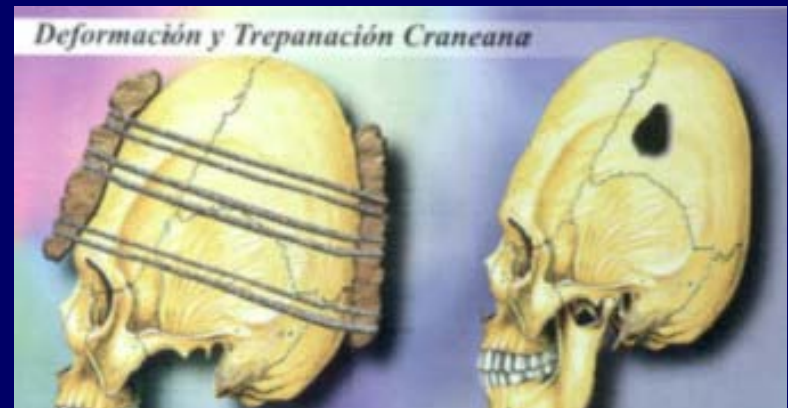


3

## Modification of skull shape



Paracas culture 3000y BP-South Perú

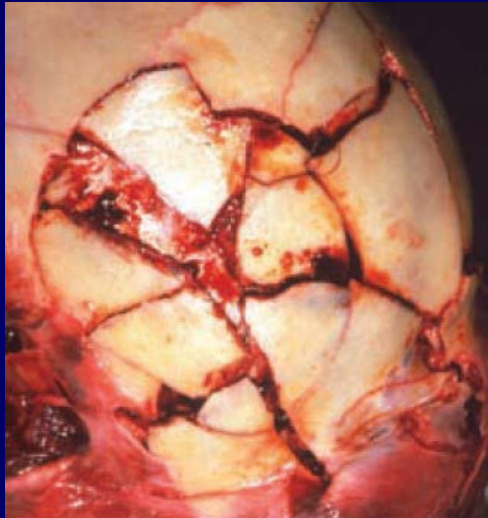
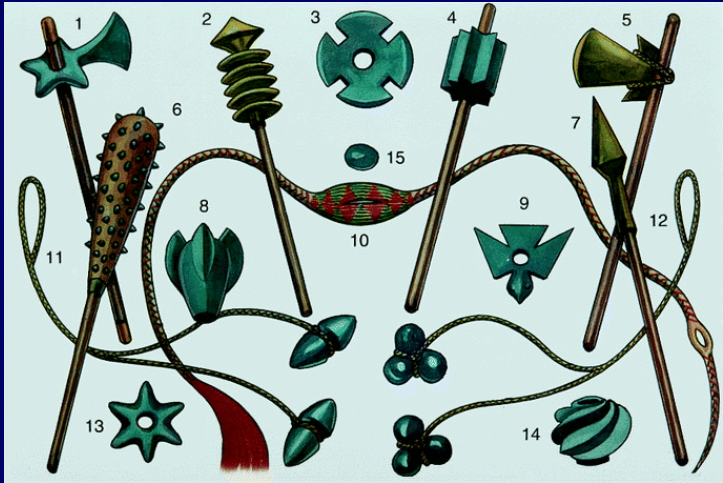




# Pre-Inca and Inca Culture



A battle and weapons used



Depressed skull fracture

4

# Trepanations

Surgical treatment for:

- Traumatic lesions
- Pus collections
- Some visible diseases
- Head hache
- Convulsions

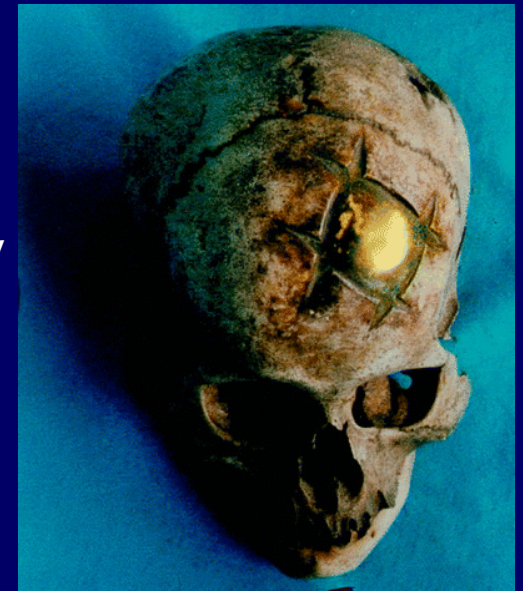
Magic ?



Tumi: The scalpel of excellence



Gold  
craneoplasty



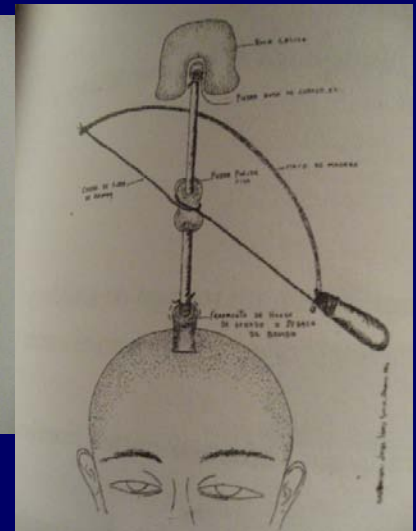
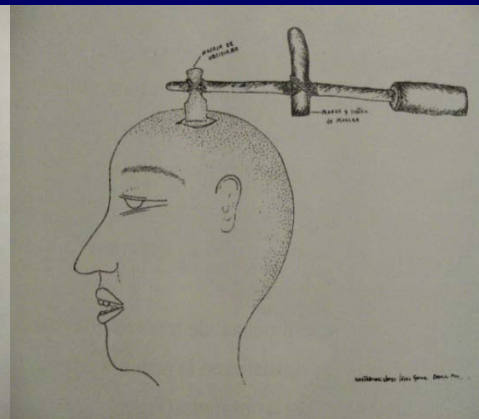
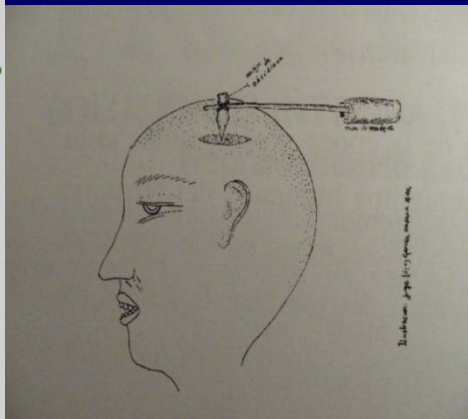
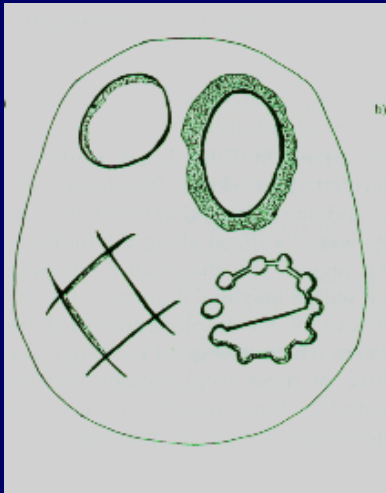
Craniectomy  
with  
bone regeneration



Ceremonial Tumi    Descompressive craniectomy



Famous Azteca Calendar



A kind of trephination, used in Maya area of Mesoamerica

**1520-1820**

**Surgery was dedicated to the treatment of war derived lesions  
Surgery ( trepanations) based on “magic reasons”  
High percentage of morbidity and mortality  
No anesthesia during operations  
No asepsia nor antisepsia  
No concept of operating theatre  
Slowly development of anatomy and surgical technique**

**1850**

**General surgery, and Neurosurgery, changed after  
the half of XIX century  
Advances in surgical techniques and anatomy  
Advances in general anesthesia – Morton 1846  
Advances in anti-sepsia – Lister 1867  
Brain localization – Broca 1861**

**1880-1920**

**The real Neurosurgery was established in the  
last 2 decades of XIXs. and first 2 decades of XXs.  
Victor Horsley ( 1857- 1916)  
Harvey Cushing ( 1864 – 1939)**

# Development of the Neurosurgery in Latinamerica

## First Stage

### Neurosurgery was performed by general surgeons

- 1710 Luis Gomes Ferreira, Brasil, craniectomy for traumatic skull depression in a slave
- 1736 Pierre Blandin, Pedro Bigott and Juan Francisco Pellirin, Venezuela, performed a craneal trepanation due to a depressed skull fracture to the patient J Leguisamon
- 1847 Antonio Vargas Reyes, Colombia, craniectomy for traumatic skull lesions.
- 1890 Juan Justo- Argentina, performed the first osteoplastic craniotomy
- 1890 Rafael Lavista – México Report of 6 trepanations due to tumors, cysts and trauma.
- 1891 Lobet , Argentina, operated the first cerebral Hydatidic Cyst (parasite)
- 1893 David Benavente, Chile, presented “Brain localization and drainage of posterior fossa”
- 1894 Manuel Quintela, Uruguay, evacuation of huge abscess through mastoidectomy
- 1908 Gregorio Amunátegui, Chile, presented in Buenos Aires, “Trepanations in Brain Tumors and traumatic lesions”

1901, Dr.Francisco Canessa,Uruguay, performing a neurosurgical operation



# Development of the Neurosurgery in Latinamerica

## Second Stage

Neurosurgery was developed and performed by general surgeons with special dedication to Central Nervous System Pathology



1917 Finocchietto -Argentina , trained by H.Cushing

1925 Ernesto Dowling, Manuel Balado – Argentina, trained by H. Cushing ,created a neurosurgical service, almost at the same time.

1928 José Ribe Portugal,Alfredo Monteiro, Rio de Janeiro; Carlos Gama,Sao Paulo, Brasil, initiated neurosurgical services. Augusto Brandao Filho: first cerebral angiography ( with Egas Moniz)



M.Balado



E. Dowling



J.Ribe Portugal

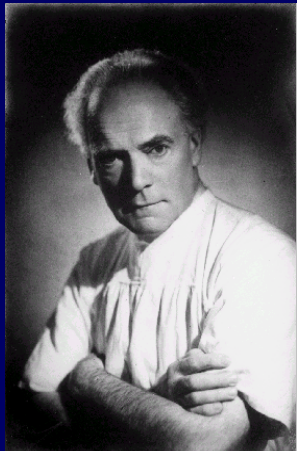


Fig 3. Imagem em perfil da primeira angiografia cerebral realizada no Brasil por Brandão Filho e Egas Moniz, em 6 de agosto de 1928.

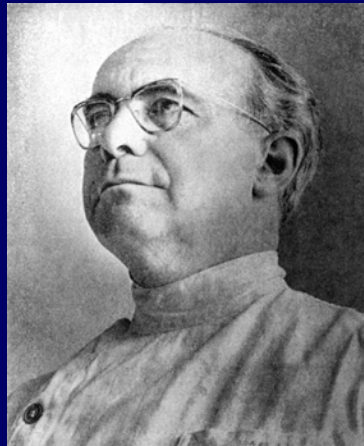
# Development of the Neurosurgery in Latinamerica

## Thirdt Stage 1930-1940

Neurosurgery developed and performed by neurosurgeons trained in Europe and USA. They created neurosurgical latinamerican centers and formed their own school of specialists



A.Schröder



A.Asenjo



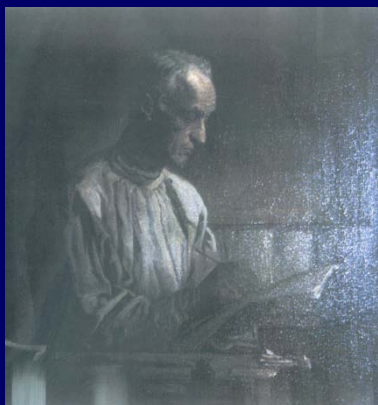
Institute of Neurosurgery- Chile



symbol of INCA



# Development of the Neurosurgery in Latinamerica



H.Cushing-Father of modern Neurosurgery



Drs. Fierro- Valladares- Asenjo-  
Contreras-Villavicencio



Dra. María Cristina  
García-Sancho



E. Rocca



F. Pitty



E. Bustamante



J. Suzuki



C. Castellano

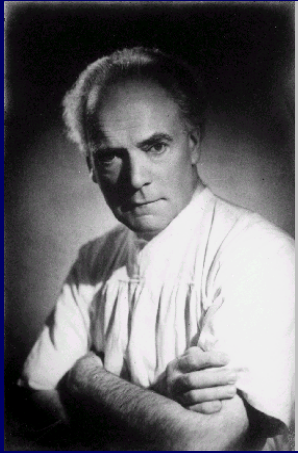


L. Ditzel

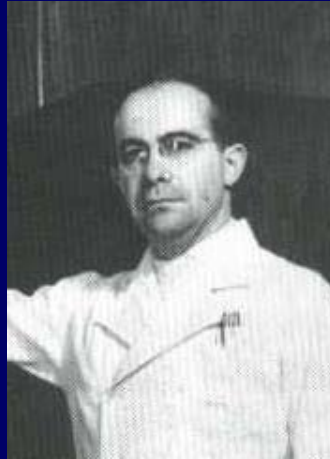


N. Nazar

# Development of the Neurosurgery in Latinamerica



A.Schröder



A.Asenjo

**Montevideo , February 27,1944**

Founded at the “south cone” of South América, an international institution dedicated to the study, research and difussion of Neurosurgery.

It was a Continental Permanent Committee, and invited Drs.Ramón Carrilloand Rafael Babini,from Argentina, Dr.Elyseu Paglioli and Jose Ribe Portugal from Brasil,Dr.Roman Arana Iñiguez, from Uruguay, and Esteban Rocca ,from Perú.

Initiated the First International Congress in the World.

**November 1945 at Montevideo.**

# Congresses of the Latin American Federation of Neurosurgical Societies from 1945 to the present

Congresses of the Latin American Federation of Neurosurgical Societies from 1945 to 2004

|      |              |   |
|------|--------------|---|
| 1945 | Ist CSN      | Montevideo, Uruguay; President (P): Alejandro Schroeder |
| 1947 | IInd CSN     | Santiago, Chile; P: Alfonso Asenjo                      |
| 1949 | IIId CSN     | Buenos Aires, Argentina; P: Ramón Carrillo              |
| 1951 | IVth CSN     | Porto Alegre, Brazil; P: Elyseu Paglioli                |
| 1953 | Vth CSN      | Lima, Peru; P: Esteban Rocca                            |
| 1955 | Vth CLAN     | Montevideo, Uruguay; P: Ramón Arana                     |
| 1957 | VIIIth CLAN  | Medellín, Colombia; P: Ernesto Bustamante               |
| 1959 | VIIIth CLAN  | Santiago, Chile; P: Alfonso Asenjo                      |
| 1961 | IXth CLAN    | Mexico, Mexico; P: Manuel Velasco-Suarez                |
| 1963 | Xth CLAN     | Buenos Aires, Argentina; P: Ricardo Morea               |
| 1965 | Xth CLAN     | São Paulo, Brazil; P: Alfonso Mattos Pimenta            |
| 1967 | XIth CLAN    | Lima, Peru; P: Esteban Rocca                            |
| 1969 | XIth CLAN    | Bogotá, Colombia; P: Mario Camacho Pinto                |
| 1971 | XIVth CLAN   | Montevideo, Uruguay; P: Ramón Arana                     |
| 1973 | XVth CLAN    | Panama, Panama; P: Feliz Pitty                          |
| 1975 | XVth CLAN    | Caracas, Venezuela; P: Alberto Martínez Coll            |
| 1977 | XVIIIth CLAN | Santiago, Chile; P: Reinaldo Poblete                    |
| 1979 | XVIIIth CLAN | Buenos Aires, Argentina; P: José Benaim                 |
| 1981 | XIXth CLAN   | Guayaquil, Ecuador; P: Emilio Harb                      |
| 1983 | XXth CLAN    | São Paulo, Brazil; P: Gilberto Machado de Almeida       |
| 1984 | XXIst CLAN   | Caracas, Venezuela; P: Abraham Krivoy                   |
| 1986 | XXIInd CLAN  | Lima, Peru; P: Humberto Hinojosa                        |
| 1988 | XXIIId CLAN  | Acapulco, Mexico; P: Horacio Martínez-Romero            |
| 1990 | XXIVth CLAN  | Miami, USA.; P: Sergio González Arias                   |
| 1992 | XXVth CLAN   | La Paz, Bolivia; P: Oscar Quiroga                       |
| 1994 | XXVIth CLAN  | Cartagena, Colombia; P: Germán Peña                     |
| 1996 | XXVIIth CLAN | San Pedro Sula, Honduras; P: Cesar Castellanos          |
| 1998 | XXVIIth CLAN | Santiago, Chile; P: Jorge Mendez                        |
| 2000 | XXIXth CLAN  | Fortaleza, Brazil; P: Djacir Figueiredo                 |
| 2002 | XXXth CLAN   | Lima, Peru; P: Uldarico Rocca                           |
| 2004 | XXXIst CLAN  | Panama, Panama; P: Guzmán Arand                         |

Congresses of the Latin American Federation on Neurosurgical Societies from 1945 to 2004.

|                         |  |
|-------------------------|--|
| <b>2006 XXXII CLAN</b>  | <b>Buenos Aires, Argentina ; P: Dr. Nestor Renzi</b> |
| <b>2008 XXXIII CLAN</b> | <b>Bogota, Colombia; P: Dr. Remberto Burgos</b>      |
| <b>2010 XXXIV CLAN</b>  | <b>San Salvador; P: Dr. Ernesto Herrera</b>          |

# Development of the Neurosurgery in Latinamerica

We can establish 4 stages in Latinamerican Congress:

- 1- **South-american-I to VI (1945-1955)** .Ruled by the Permanent Committee
- 2- **Latin-american VII-XIX (1957-1981)**.Now included México and Central-america, and at 1981 was founded the Latinamerican Federation
- 3- **Federative XX-XXIII (1983-1989)**.The Administrative Committee was changed to more participative members all over Latinamerica-  
Finish the Permanent Committee
- 4- **Geographycal expansion XXIV forward (1991-present)**.The North-american Chapter, including latinamerican neurosurgeons that live and work in Canada and USA.



# The Latinamericans and the Development of the Neurosurgery in the World

After de II world war,1949, during the World Neurological Congress at Paris Professor Alfonso Asenjo was the first to propose to have separated Congress from the neurologists. A World Congress of Neurosurgery.

1955 the WFNS was founded

1957 the First World Congress of Neurosurgery was held at Belgium



# The Latinamericans and the Development of the Neurosurgery in the World

The world Congress has been realized two times in Latin America

|                       |           |                              |
|-----------------------|-----------|------------------------------|
| 1977 Sao Paulo-Brasil | President | Dr.Aloysio de Mattos Pimenta |
|                       | Secretary | Dr. Paulo Mangabeira         |
| 1993 Acapulco-México  | President | Dr.Mauro Loyo Varela         |
|                       | Secretary | Dr.Fernando Rueda Franco     |

One latinamerican neurosurgeon  
has reached the position of  
President of the WFNS

Professor Armando Basso  
from Argentina  
1993-1997



# *Development of the Latinamerican Neurosurgery*



*THANK YOU VERY MUCH !!!*

PROF. DR. LEONIDAS M. QUINTANA  
PRESIDENT ( 2006-2008 )  
LATINAMERICAN FEDERATION OF NEUROSURGICAL SOCIETIES-FLANC