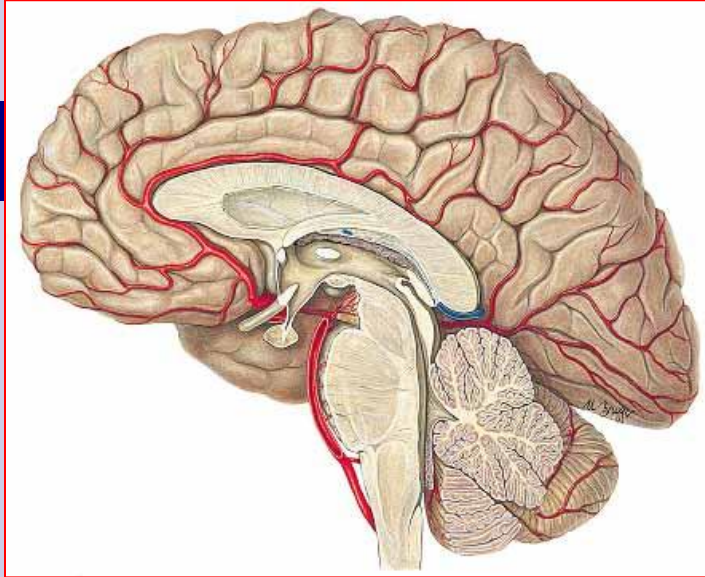


Università degli Studi di Ferrara

Corso di Laurea in Odontoiatria

Anno Accademico 2018-2019

Corso di Anatomia Patologica



Dr. Stefano Ferretti

Dipartimento di Morfologia, Chirurgia e Medicina sperimentale

Università di Ferrara

Sistema Nervoso Centrale

Meningi:

- Dura madre
- Aracnoide
- Pia madre

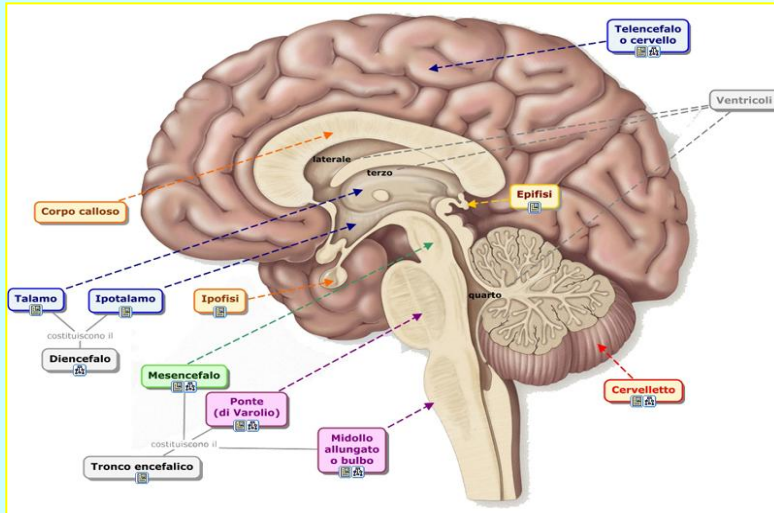
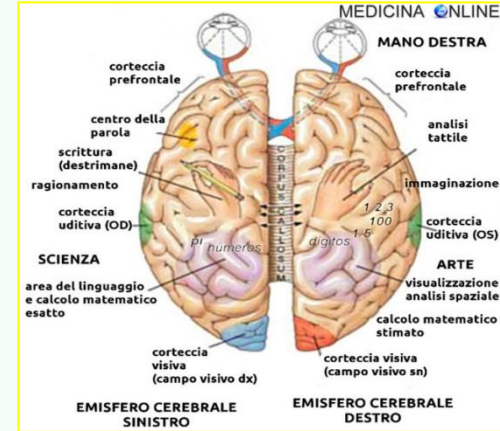
Altri:

- Vasi
- Sangue
- LCR

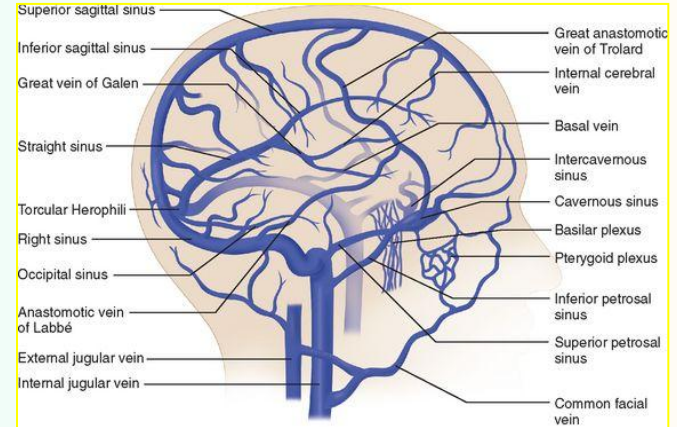
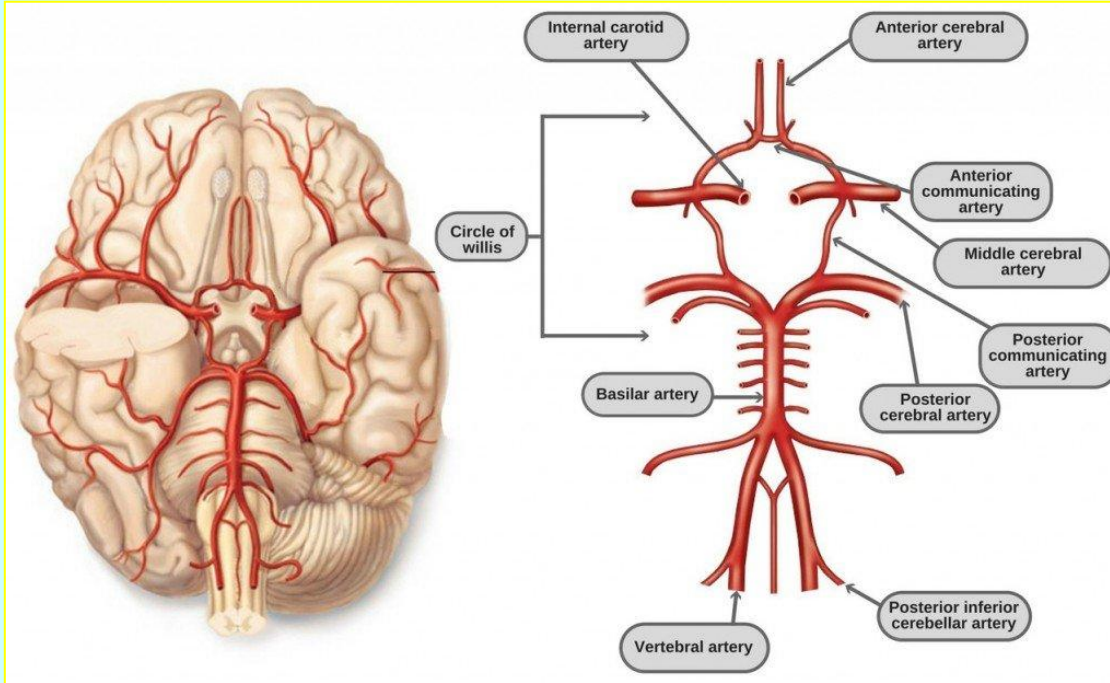
Encefalo:

- Sostanza grigia e neuropilo
- Sostanza bianca
 - Neuroni
 - Astrociti
 - Oligodendrociti
 - Microciti
 - Ependima
 - Plesso corioideo
 - Epifisi

strutture anatomiche



strutture anatomiche



Fisiopatologia:

• Pressione endocranica: LCR, attività cardiorespiratoria

- Vol. encefalo-spinale (1300-1500 ml)
- Vol. ematico cerebrospinale (150 ml)
- Vol. LCR (150 ml)

• Involucro rigido

- \uparrow volume 1 componente \gggg \downarrow altri 2
- Fattore tempo

ipertensione endocranica

Aumento ICP:

Medio (ben tollerato)

mmH₂O

15-21

Moderato (sintomatico, trattamento)

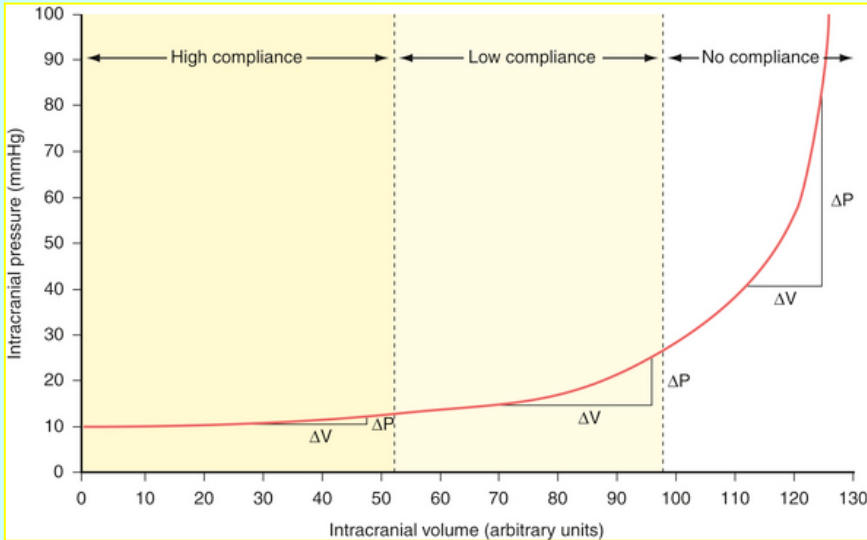
21-30

Severo (ischemia, alterazioni gravi)

37

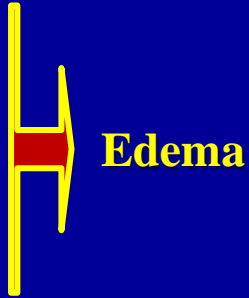
Fatale (caduta perfusione, morte)

60



Patogenesi:

- Idrocefalo
- Tumori
- Traumi cranici
- Emorragie
- Trombosi seni venosi
- Meningiti
- Encefaliti
- Ascessi cerebrali



ipertensione endocranica

Clinica:

- Cefalea
- Vomito «a getto» senza nausea
- Papilledema
- Bradicardia
- Ipertensione arteriosa
- Disturbi attività respiratoria
- Fenomeni secondari (erniazione)

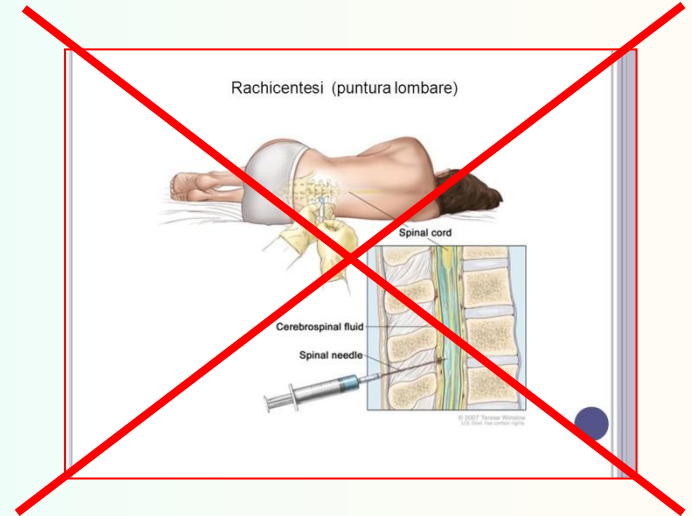
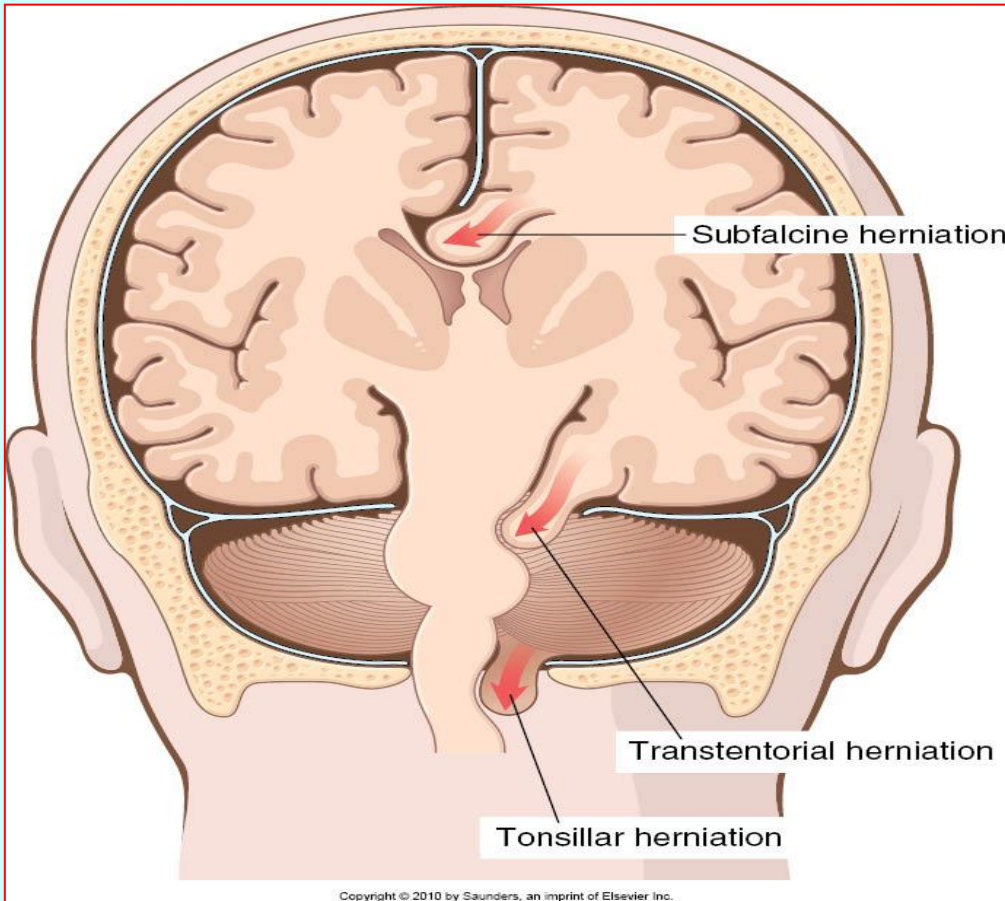
Terapia chirurgica:

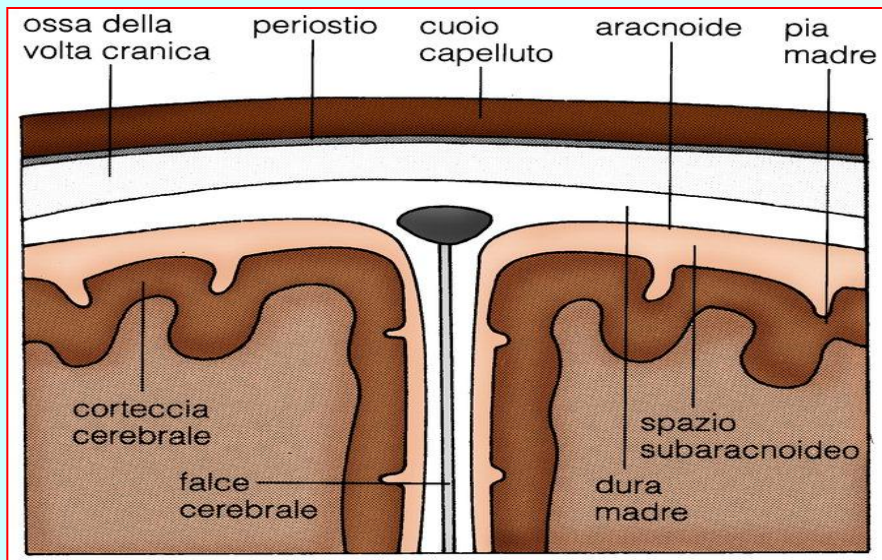
- Trauma cranico: evacuazione ematomi/contusioni, craniotomia decompressiva
- Tumori: asportazione
- Idrocefalo: derivazione liquorale
- Emorragie: evacuazione
- Ascessi: asportazione

Terapia medica:

- Pervierà vie aeree
- Diuretici osmotici
- Ventilazione assistita / iperventilazione
- Neuroprotezione barbiturica

erniazioni





meningi

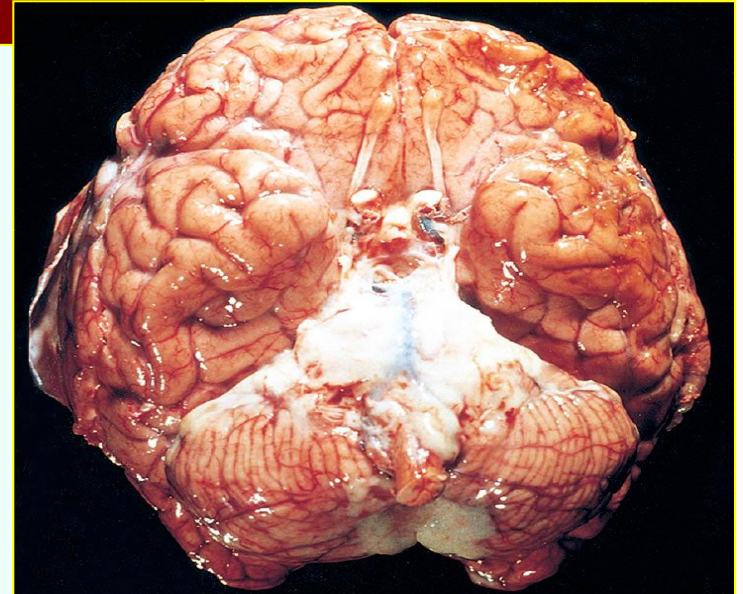
meningiti acute

Forme batteriche:

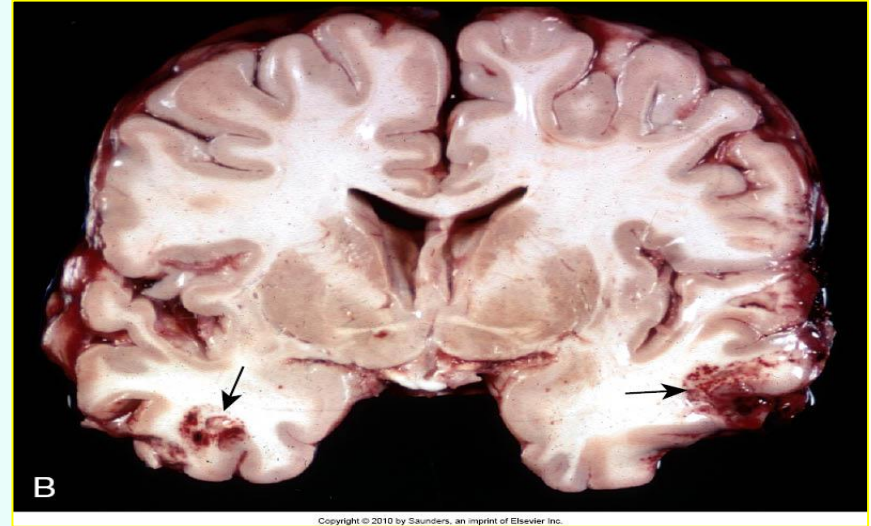
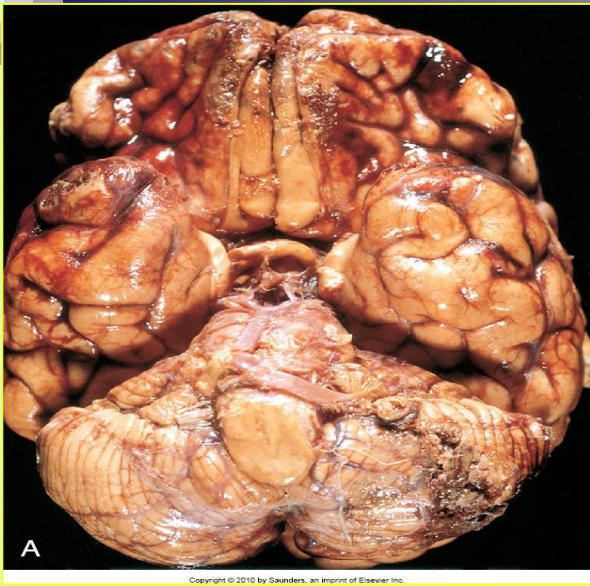
- *Escherichia coli* (infantili)
- *Neisseria* (adolescenti, adulti)
- *Haemophilus* (adulti)
- *Streptococchi B* (senili)
- Cefalea, fotofobia
- Stato soporoso
- Meningismo
- Complicanze (WF)
- Opacità CSF
- Essudato leptomeningeo
- Edema, vasodilatazione
- Esiti
 - Fibrosi
 - Complicanze acute (WF)
 - Compl. Croniche (fibrosi, idrocefalo)

Forme virali (“asettiche”):

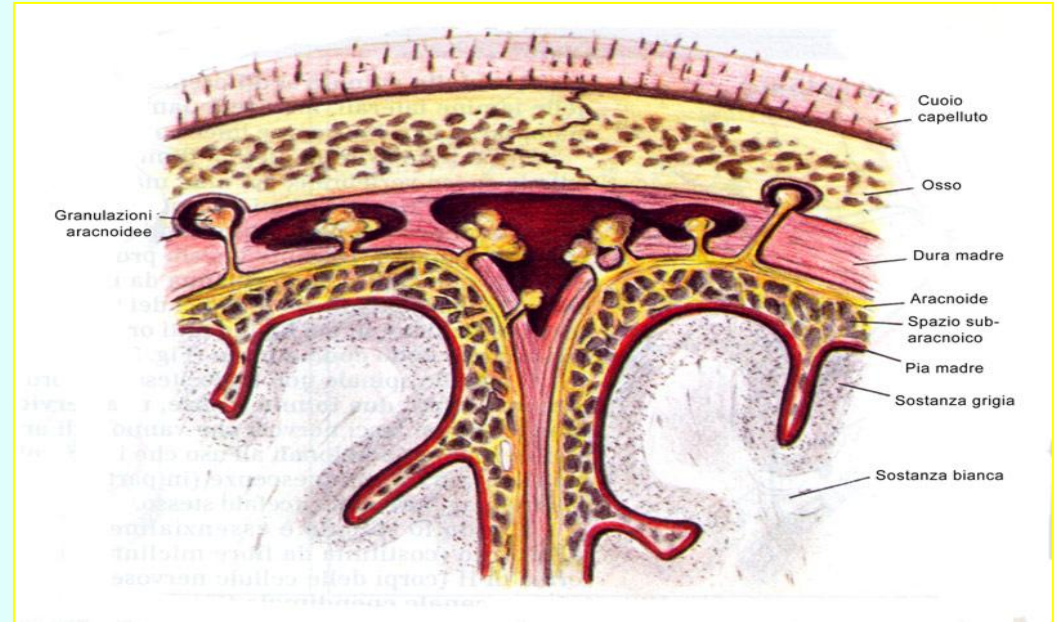
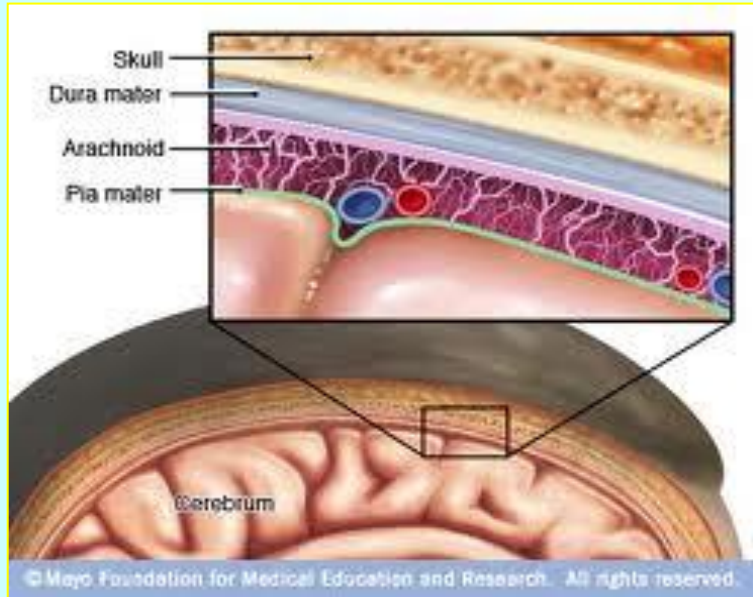
- Etiologia virale
- Decorso subacuto, autolimitante
- Linfocitosi



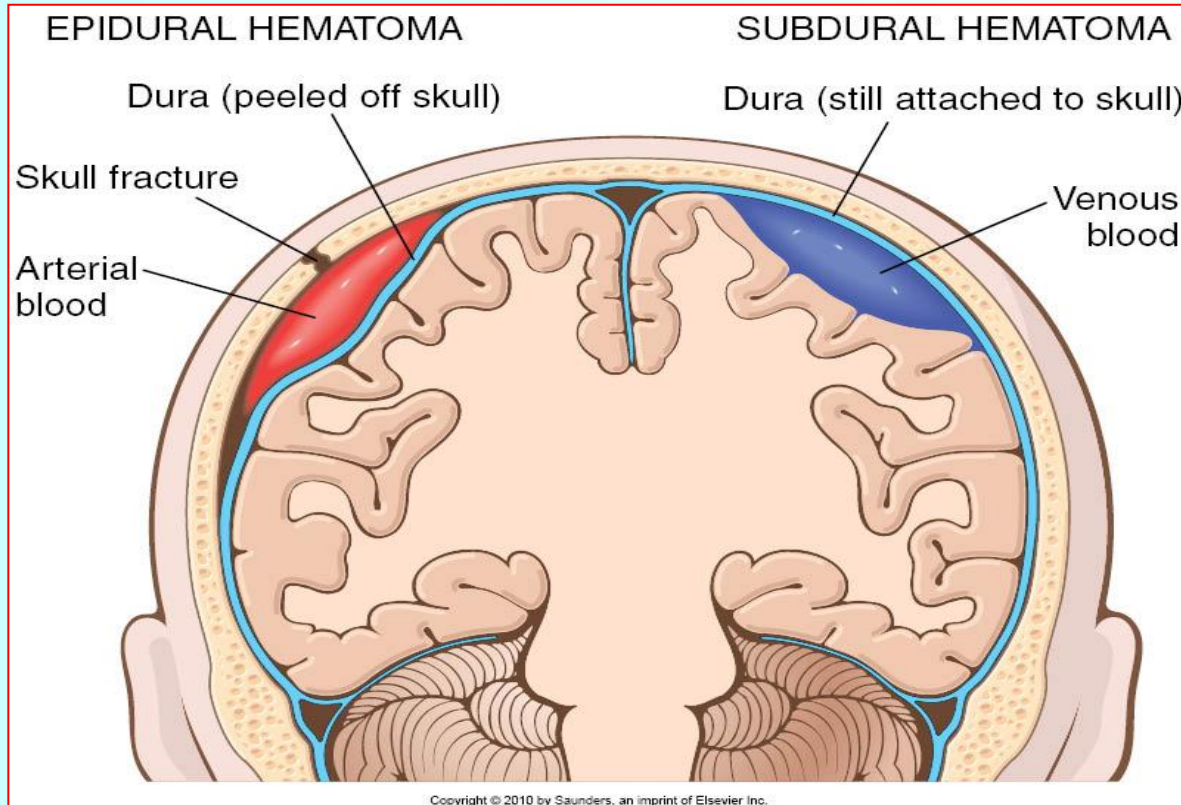
contusioni



emorragie

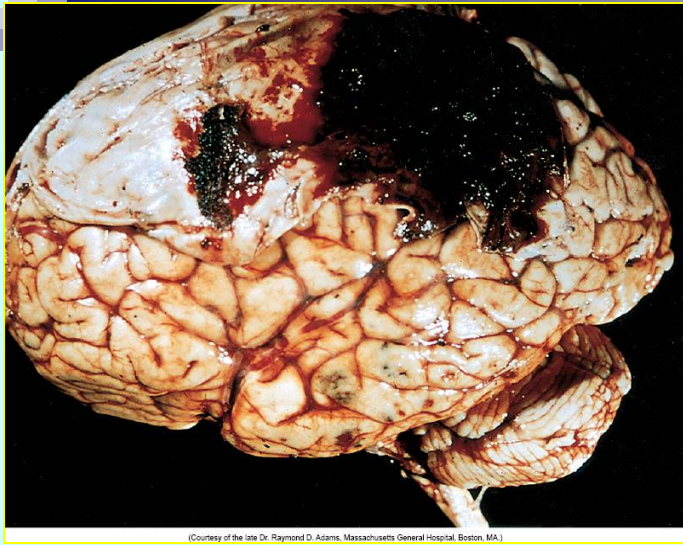


emorragie



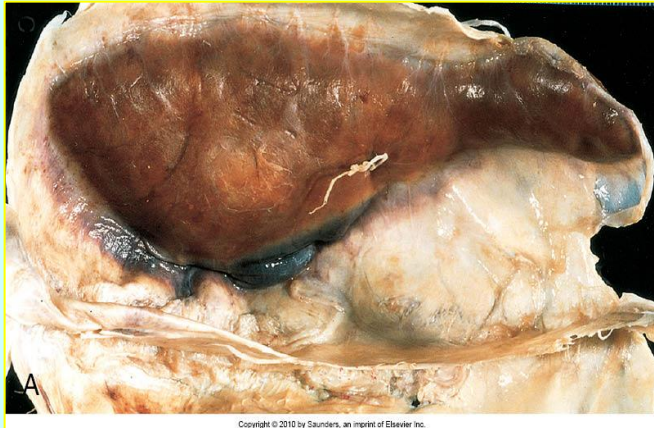
**Ematoma
extra e
sottodurale**

emorragie

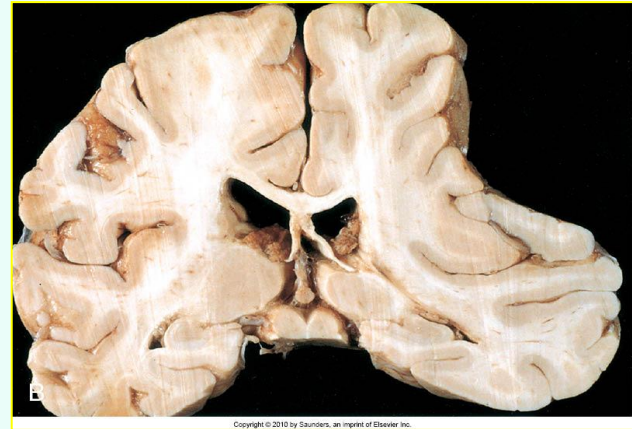


(Courtesy of the late Dr. Raymond D. Adams, Massachusetts General Hospital, Boston, MA.)

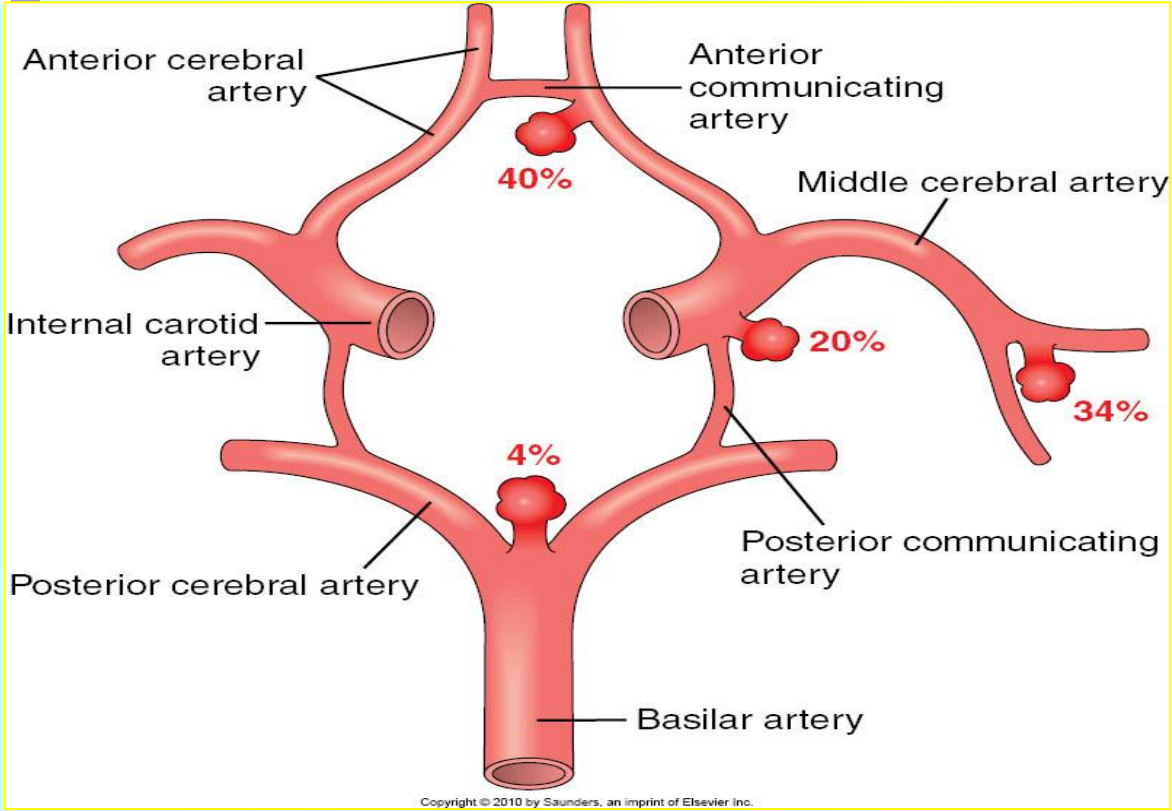
**Ematoma
extra e
sottodurale**



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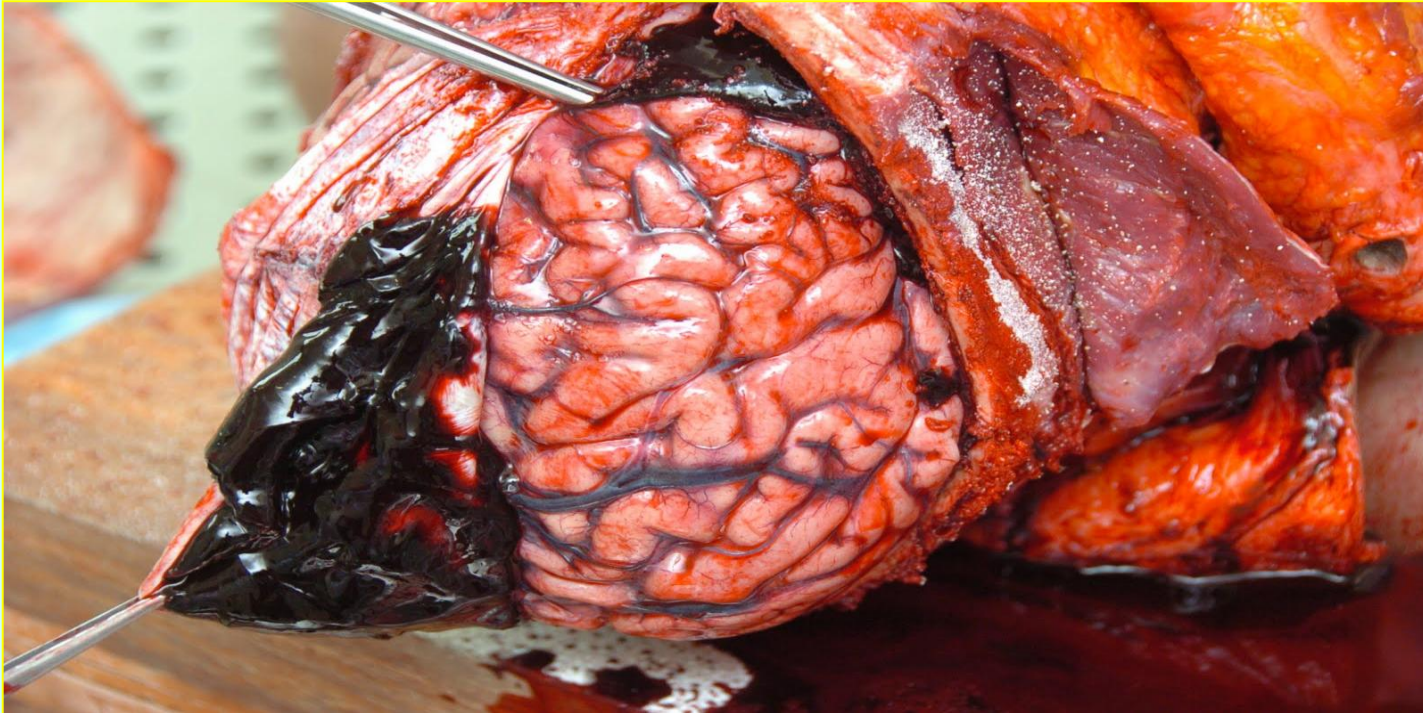
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**aneurismi
“congeniti”**



**aneurismi
“congeniti”**





encefalo

Forme acute batteriche:

- Da infezioni adiacenti
 - Mastoiditi
 - Sinusiti
- Da dissem. ematogena:
 - Endocarditi acute batteriche
 - Sepsi polmonari
 - Immunosoppressione
- Etiologia: strepto/stafilococchi
- Edema marcato
- Formazione di ascessi con necrosi
- Tessuto di granulazione
- Formazione di capsula (F.bl. perivasc.)
- Gliosi reattiva
- Lesioni destruenti
- Deficit neurologici
- Ipertensione endocranica, erniazioni
- Rottura dell'ascesso
- Prognosi severa

Meningoencefaliti croniche batteriche:

- TBC
- Sifilide
- Borreliosi (Lyme)

Meningoencefaliti virali:

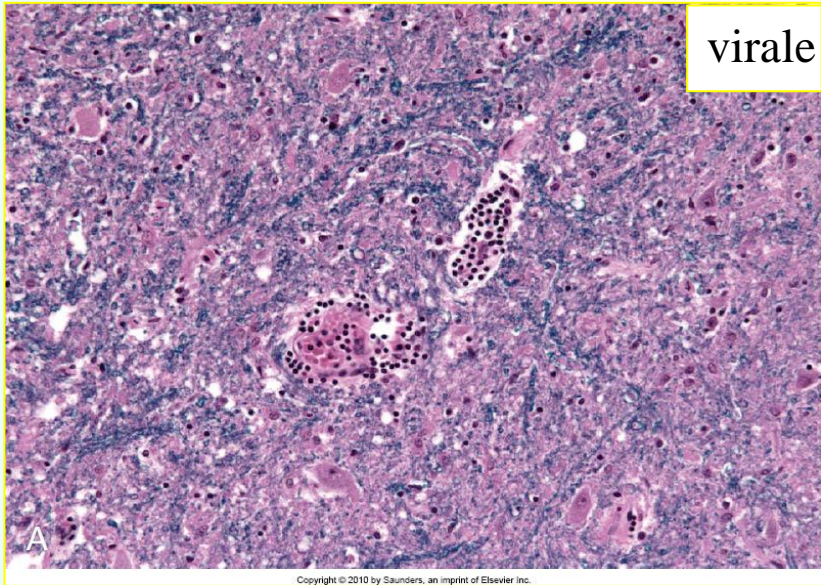
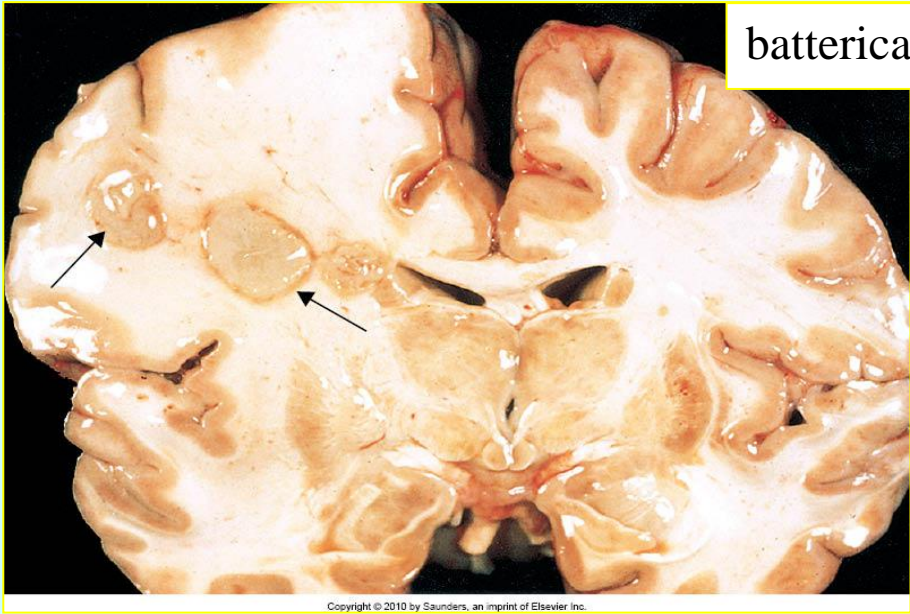
- Arbovirus
- HSV1, HSV2, Zoster
- Citomegalovirus
- Poliovirus
- Rabbia
- HIV


Meningoencefaliti micotiche:

- Candida
- Criptococco
- Istoplasma
- Coccidioides
- Aspergilli
- Blastomices

encefaliti

encefaliti





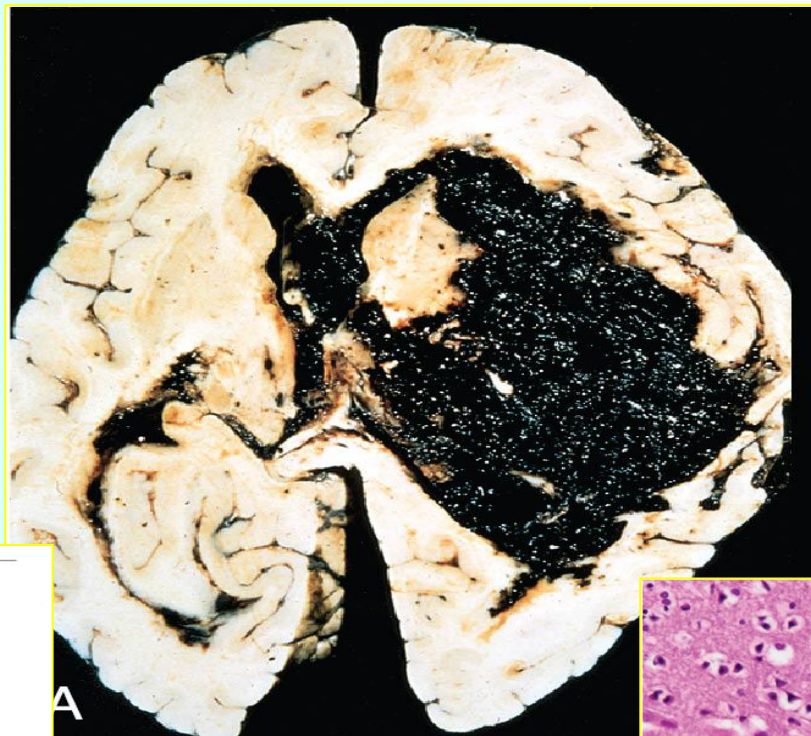
patologia vascolare

Fattori rischio:

- Traumi
- Ipertensione
- Infarti
- Angiopatia amiloide

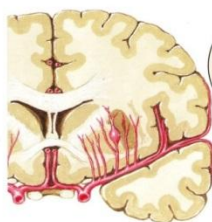
emorragia

GEC



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Emorragia cerebrale (ipertensiva): patogenesi



A. Microaneurismi formati in una arteria del parenchima cerebrale a causa dell'ipertensione. I vasi lenticolari mostrati sono i più comunemente coinvolti, ma questi processi si possono verificare anche in altre parti del cervello, in particolare a livello della sostanza bianca cerebrale, del talamo, del ponte e del cervelletto.



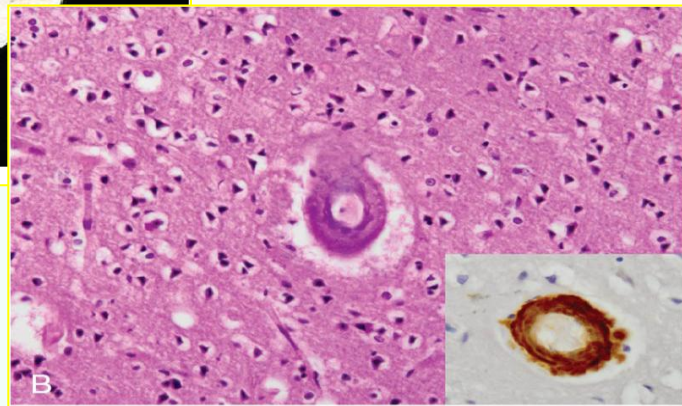
B. Rottura di un microaneurisma che causa compressione dei vasi adiacenti (satelliti).



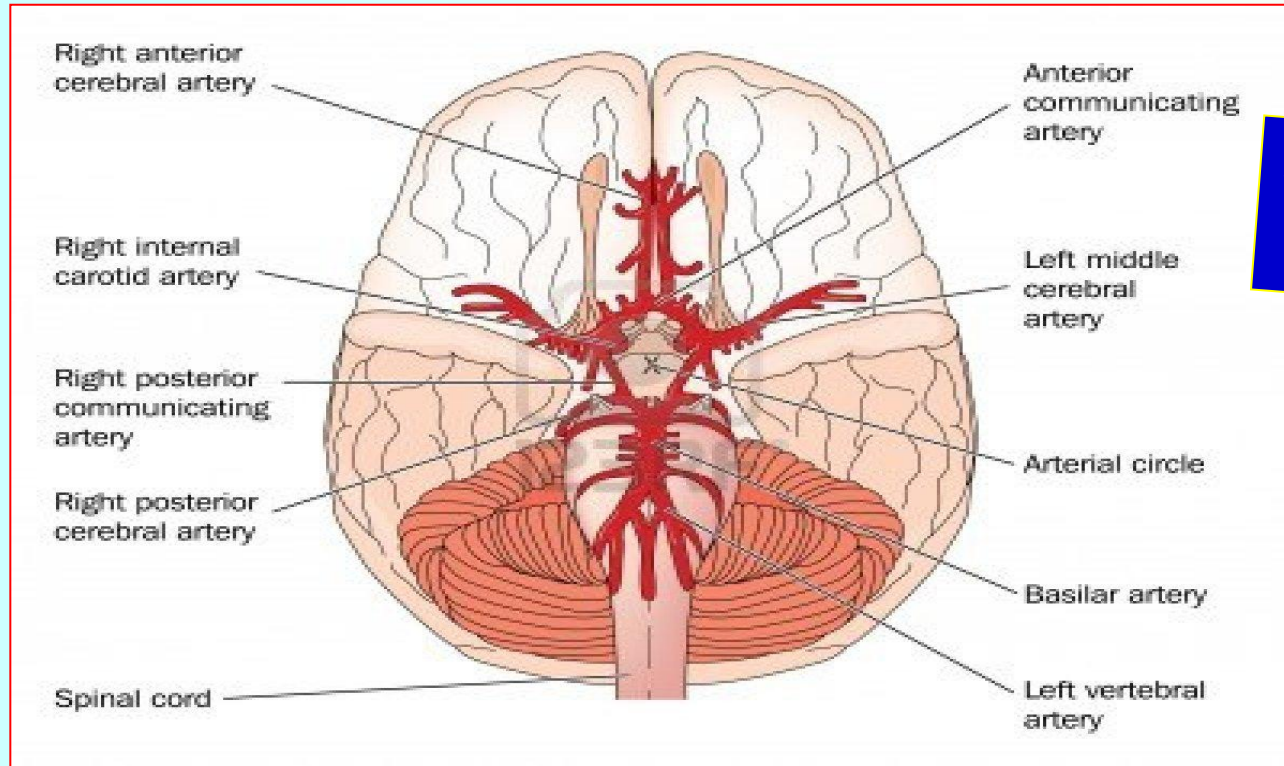
C. Rottura dei vasi satelliti.



D. La quantità di sangue che strarica nel tessuto cerebrale dipende dal furgore istantaneo che si oppone alla pressione sanguigna intravascolare.



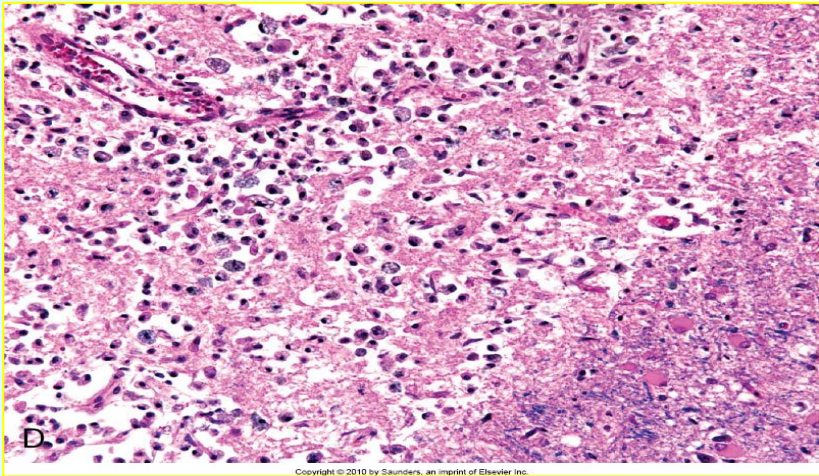
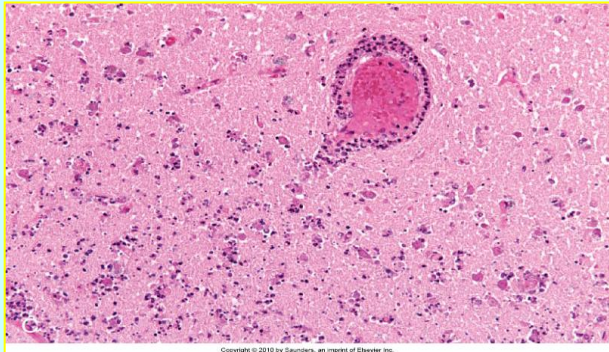
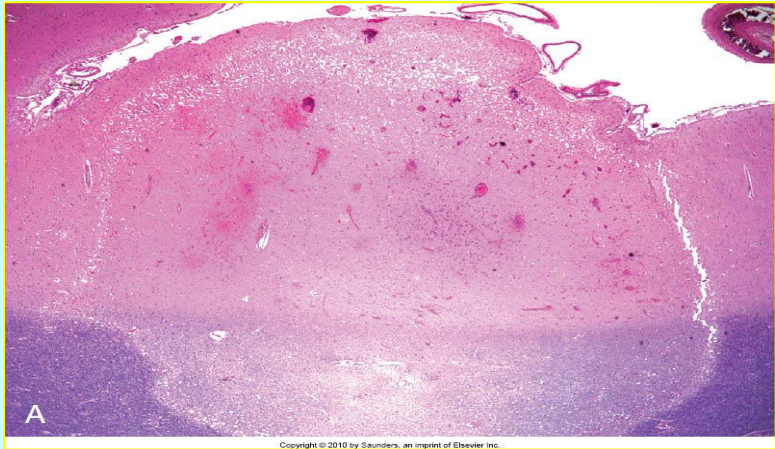
SNC



**circolo arterioso
cerebrale**

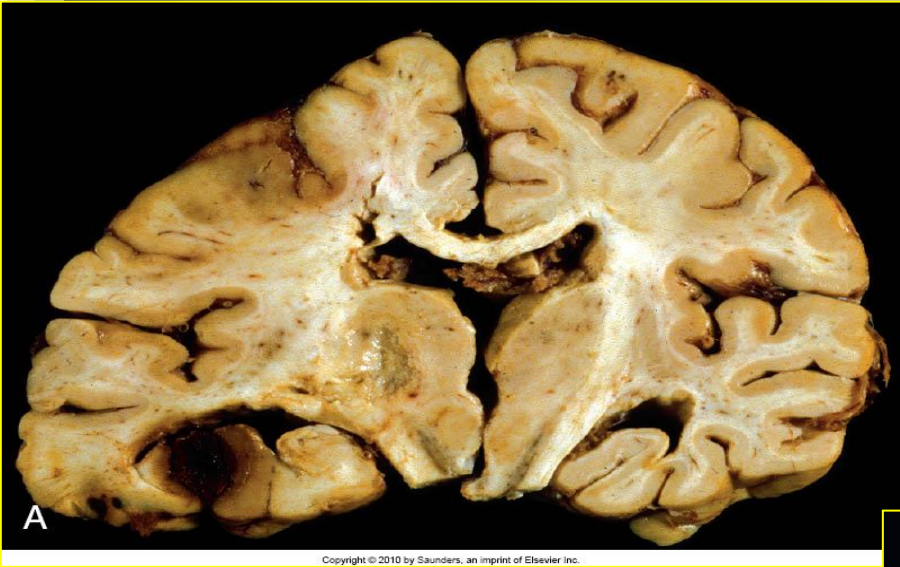
SNC

**infarto
cerebrale**



SNC

infarto
cerebrale



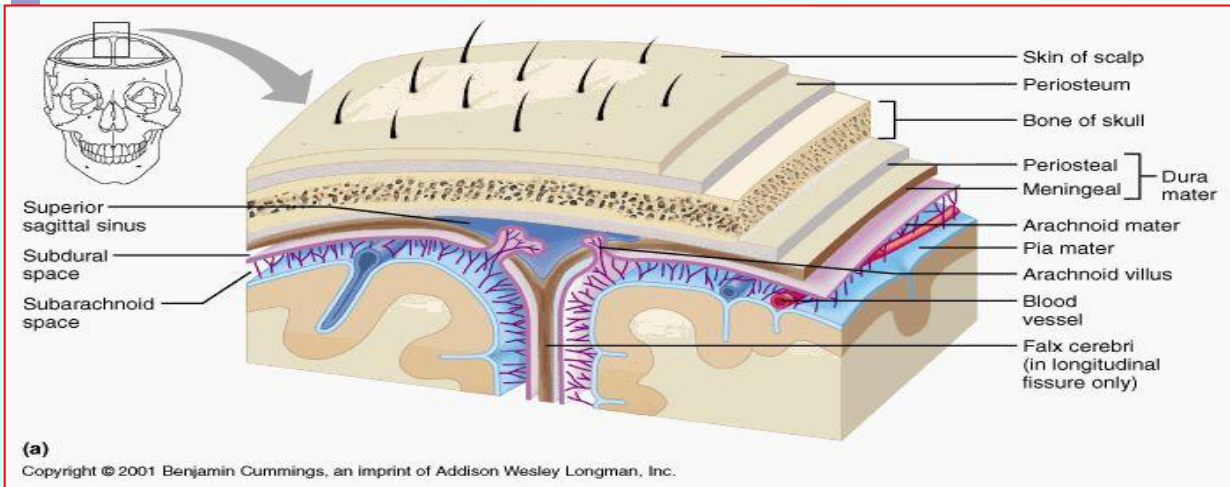
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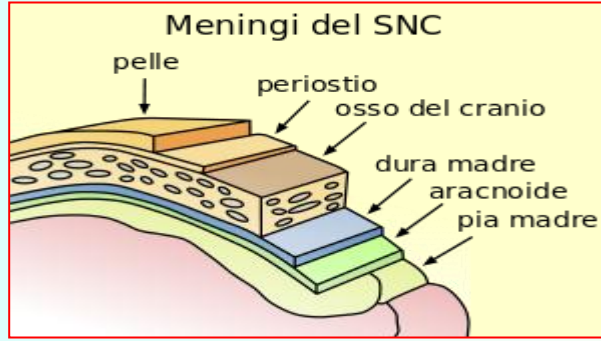
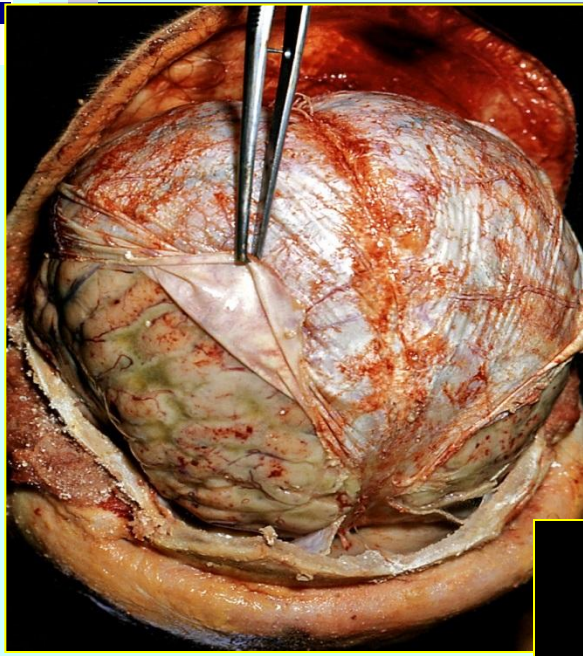
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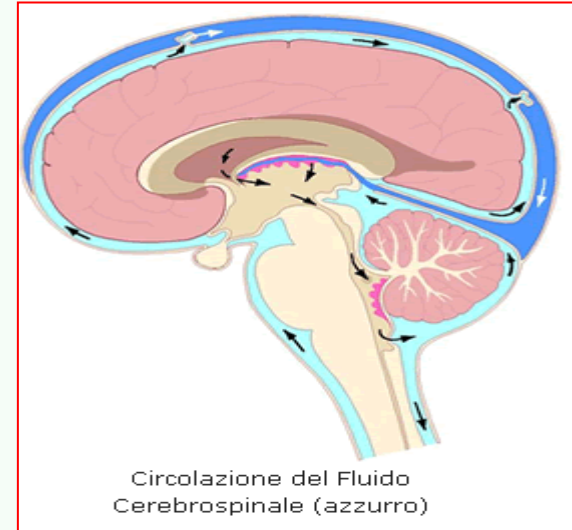
neoplásie



Meningi

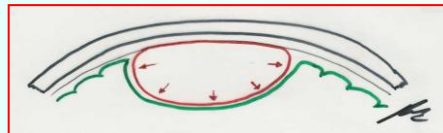


anatomia delle meningi



Caratteri clinico-biologici

- ✓ Insorgenza in età adulta, forme «benigne»
- ✓ Rischio da pregressa rx terapia
- ✓ Origini dai meningoteli dell'aracnoide
- ✓ Non comuni nei bambini
- ✓ M:F=2.3 (spinali:10)
- ✓ Lesioni spesso solitarie
- ✓ Generalmente a lenta crescita
- ✓ Sintomatologia vaga (compressione)
- ✓ Localizzazione spesso parasagittale
- ✓ Spesso adesi alla dura
- ✓ Ubiquitari, anche ventricolari (plessi)
- ✓ Talora «infiltranti» teca ed encefalo
- ✓ Aspetto morfologico e differenziativo estremamente polimorfo
- ✓ Espressione di PR, EMA, CKT (f. secretorie)
- ✓ Crescita più veloce in gravidanza



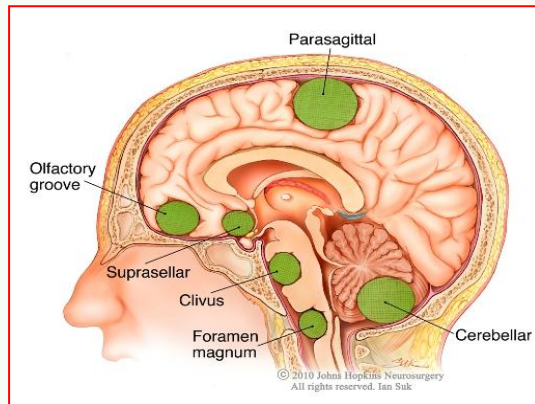
neoplasie delle meningi

Acta Neuropathol (2007) 114:97–109
DOI 10.1007/s00401-007-0243-4

REVIEW

The 2007 WHO Classification of Tumours of the Central Nervous System

David N. Louis · Hiroko Ohgaki · Otmar D. Wiestler · Webster K. Cavenee · Peter C. Burger · Anne Jouvett · Bernd W. Scheithauer · Paul Kleihues



Meningeal tumours	I	II	III	IV
Meningioma	•			
Atypical meningioma		•		
Anaplastic / malignant meningioma			•	
Haemangiopericytoma		•		
Anaplastic haemangiopericytoma			•	
Haemangioblastoma	•			

meningiomi

Origine: cellule stromali (meningoteli) aracnoidee

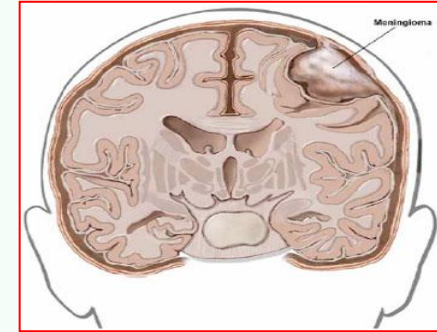
- NAS 9530/0
- Meningoteliale 9531/0
- Fibroso 9532/0
- Transizionale 9537/0
- Psammomatoso 9533/0
- Angiomatoso 9534/0
- Microcistico 9530/0
- Secretorio 9530/0
- Ricco di linfociti 9530/0
- Metaplastico 9530/0
- Cordoide 9538/1
- A cell. chiare 9538/1
- Atipico 9539/1
- Papillare 9538/3
- Rabdoide 9538/3
- Anaplastico 9530/3

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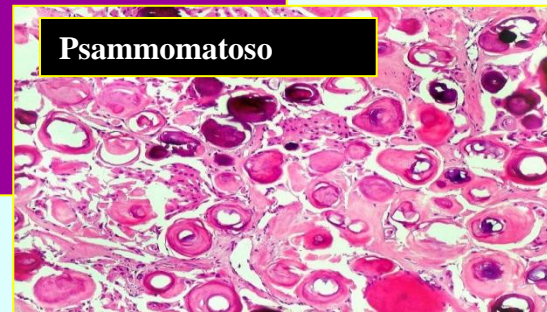
David N. Louis · Hiroko Ohgaki · Otmar D. Wiestler · Webster K. Cavenee · Peter C. Burger · Anne Jouvet · Bernd W. Scheithauer · Paul Kleihues



meningiomi

Forme a bassa aggressività (grado I)

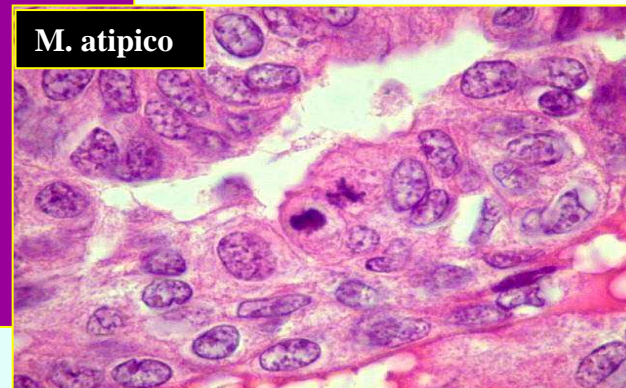
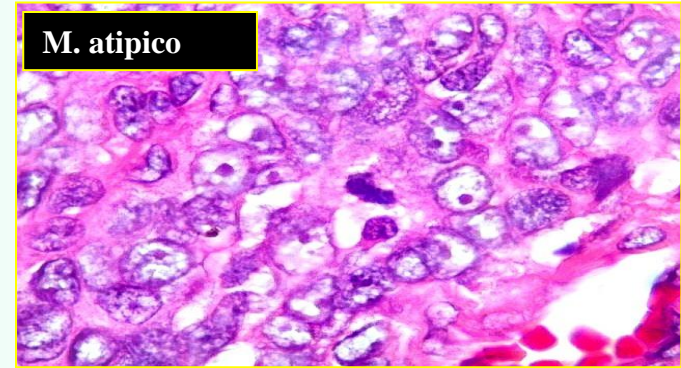
- ✓ Mutazione TNF receptor associated factor 7
- ✓ Stabilità cromosomica
- ✓ Recidive rare
- ✓ Istologia
 - ✓ M. sinciziale
 - ✓ M. fibroblastico
 - ✓ M. transizionale
 - ✓ M. psammomatoso
 - ✓ M. secretorio
 - ✓ M. microcistico
- ✓ Degenerazione xantomatosa
- ✓ Metaplasia (ossea)
- ✓ Pleomorfismo nucleare moderato
- ✓ Valore predittivo del PI
- ✓ Trattamento chirurgico



meningiomi

Forme ad aggressività moderata (grado II)

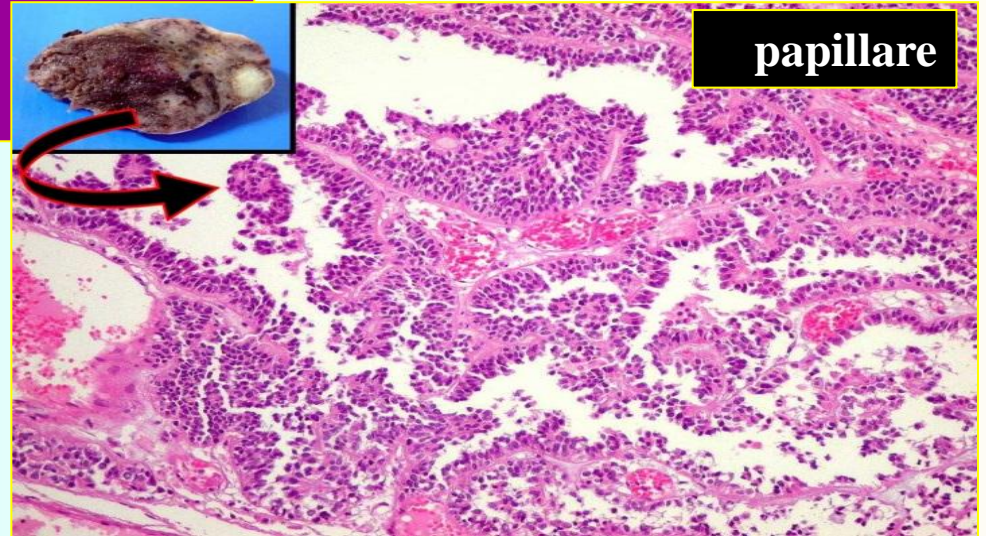
- ✓ Mutazione TNF receptor associated factor 7
- ✓ Spiccata aggressività locale
- ✓ Tendenza a recidivare
- ✓ Alto PI (>4 mitosi x HPF)
- ✓ Caratteristiche di atipia (almeno 3)
 - ✓ Aumento cellularità
 - ✓ Piccole cellule con alto rapporto N/C
 - ✓ Nucleoli prominenti
 - ✓ Crescita disordinata
 - ✓ Necrosi
- ✓ Istologia
 - ✓ M. atipico
 - ✓ M. a cellule chiare
 - ✓ M. cordoide
- ✓ Terapia chirurgica + radioterapia



neoplasie delle meningi

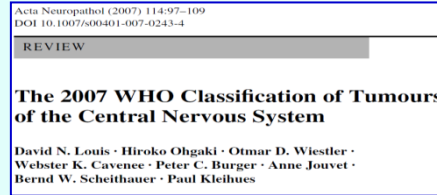
Forme altamente aggressive (maligne, grado III-IV)

- ✓ Delezione 22q12 (gene NF2 – merlina)
- ✓ Marcate atipie (sarcoma HG)
- ✓ Marcata tendenza a recidivare
- ✓ Alto PI (>20 mitosi x HPF)
- ✓ Tendenza all'infiltrazione di teca ossea ed encefalo
- ✓ Istologia
 - ✓ M. papillare
 - ✓ M. rabdoide
- ✓ Terapia chirurgica + radioterapia



tumori mesenchimali

• Lipoma	8850/0
• Angiolipoma	8861/0
• Ibernoma	8880/0
• Liposarcoma	8850/3
• T. fibroso solitario	8815/0
• Fibrosarcoma	8810/3
• F. istiocitoma mal.	8830/3
• Leiomioma	8890/0
• Leiomiosarcoma	8890/3
• Rabdomioma	8900/0
• Rabdomiosarcoma	8900/3
• Condroma	9220/0
• Condrosarcoma	9220/3
• Osteoma	9180/0
• Osteosarcoma	9180/3
• Osteocondroma	9210/0
• Emangioma	9120/0
• Emagioendotelioma epit.	9133/1
• Emangiopericitoma	9150/1
• Emangiopericitoma anapl.	9150/3
• Angiosarcoma	9120/3
• S. di Kaposi	9140/3
• S. di Ewing + PNET	9364/3



neoplasie delle meningi

tumori melanocitari primitivi

• Melanocitosi diffusa	8728/0
• Melanocitoma	8728/1
• Melanoma maligno	8720/3
• Melanomatosi meningea	9140/3

metastasi

- Ca. polmone
- Ca. mammella
- Melanoma cutaneo
- Ca. renale
- Ca. gastrico-coloretta

80%

altre neoplasie meningee

• Emangioblastoma	9160/1
-------------------	--------



Sistema Nervoso Centrale

«benigno»
«maligno»
differenziazione
prognosi
base diagnosi

inquadramento e peculiarità

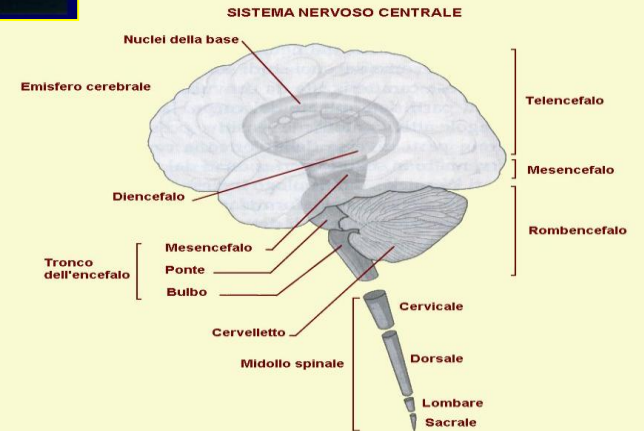
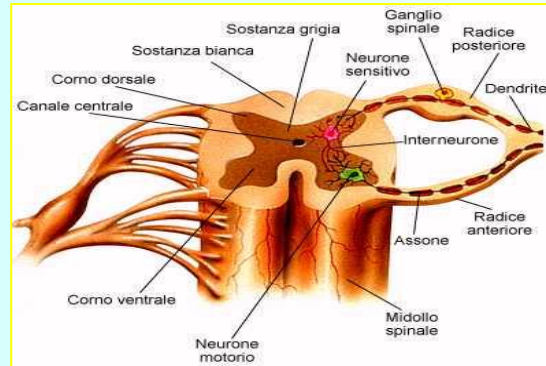
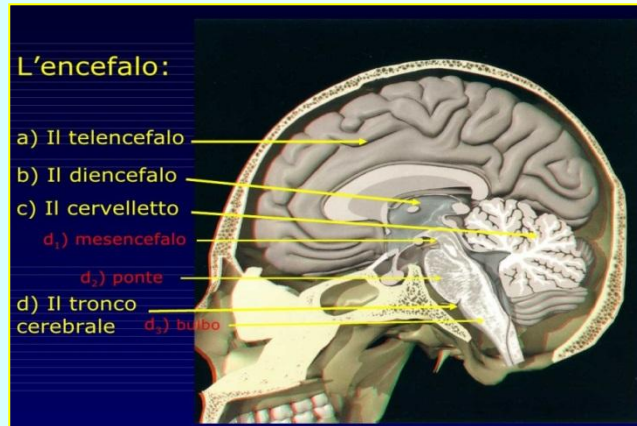
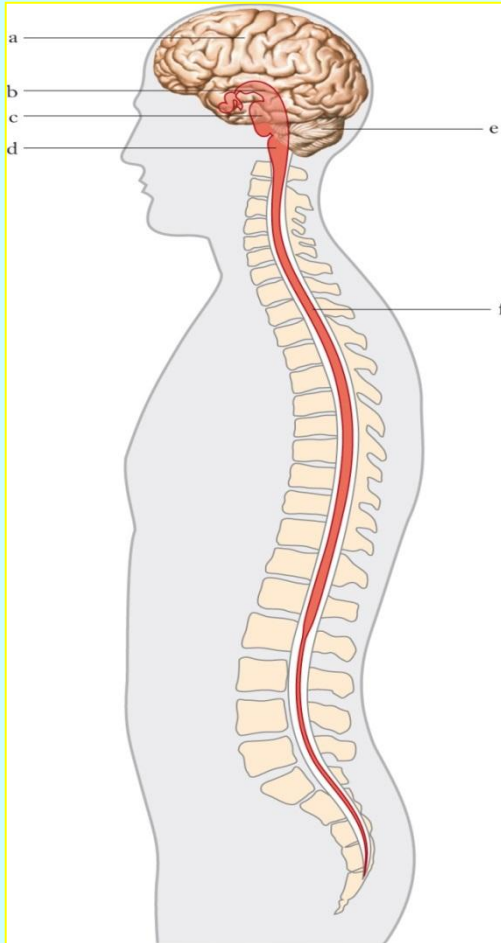
infiltrazione (?)

attività proliferativa, morfologia

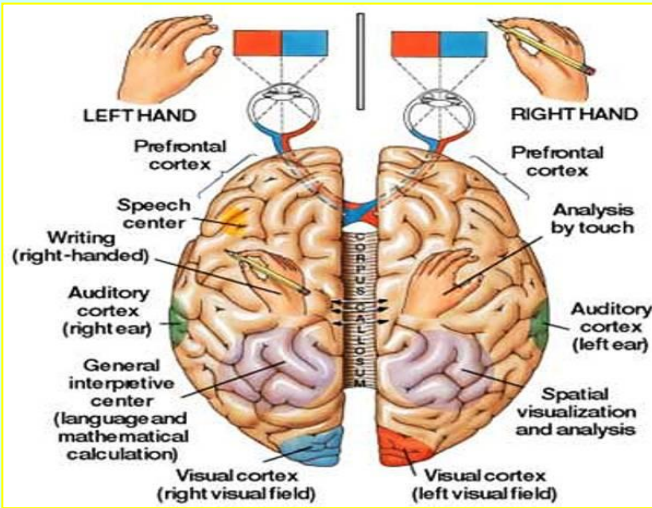
Istologia, grading,
topografia

anatomia patologica, imaging

anatomia del SNC



inquadramento e peculiarità



Neuroni

- Sensibilità/motricità
- Immagazzinamento
- Integrazione/controllo

Astrociti

- Metabolismo
- Detossificazione
- Funzione di barriera

Oligodendrociti

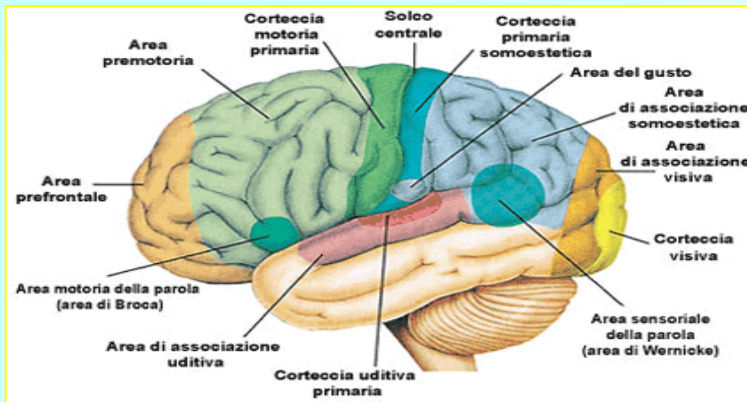
- Rivestimento mielinico

Cell. ependimali

- Riv. ventricoli, canale midollare
- Assorb./produz. liquor

Microciti

- Fagocitosi



neoplasie astrocitarie

- Astrocitoma pilocitico
 - A. pilomixoide
- A. subepend. a cell. giganti
- Xantoastrocitoma pleomorfo
- Astrocitoma diffuso
 - A. fibrillare
 - A. gemistocitico
 - A. protoplasmatico
- Astrocitoma anaplastico
- Glioblastoma
 - GB a cell. giganti
 - Gliosarcoma
- Gliomatosis cerebri

9421/1
9425/3
9384/1
9424/3
9400/3
9420/3
9411/3
9410/0
9401/3
9440/0
9441/3
9442/0
9381/3

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neoplasie del tessuto neuroepiteliale

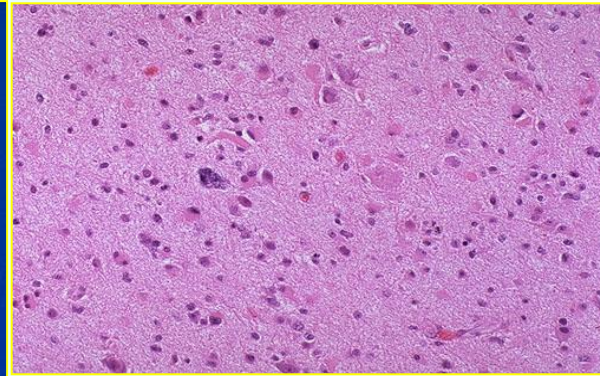
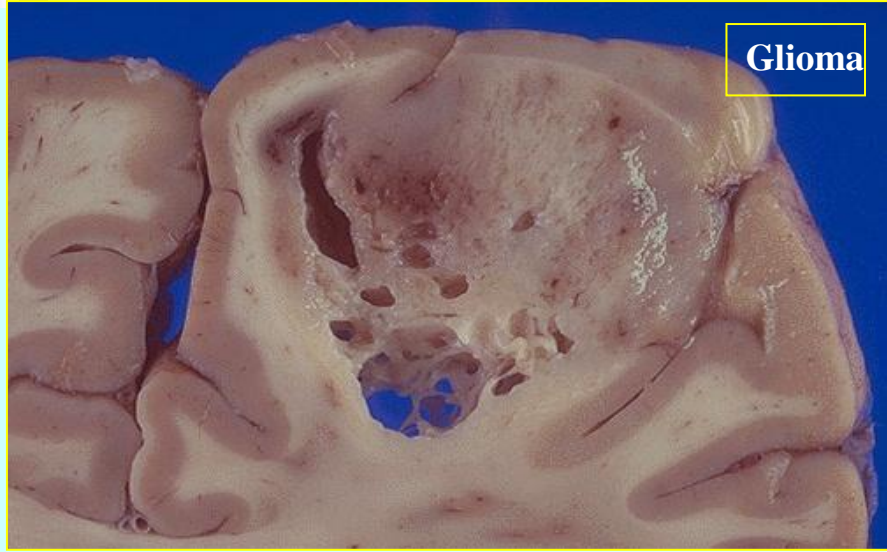
Caratteri clinico-biologici (gliomi)

- Principale gruppo di neoplasie del SNC
- Comprende astroцитomi, oligodendrogliomi ed ependimomi

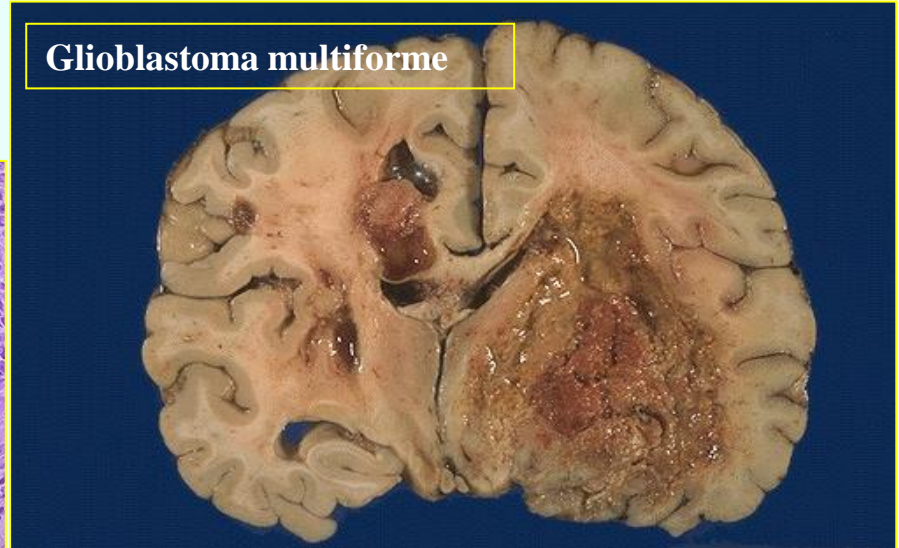
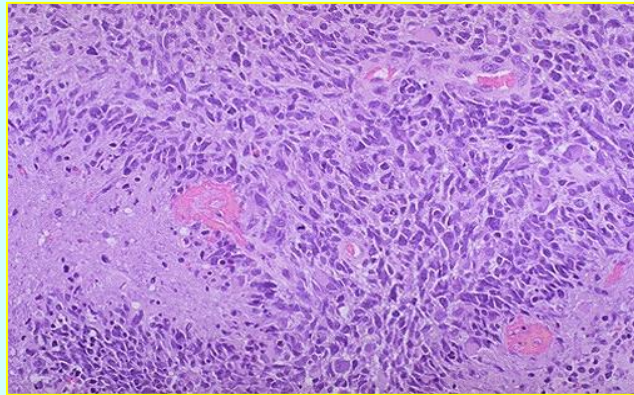
Caratteri clinico-biologici (astrocitomi)

- 80% dei t. primitivi del SNC negli adulti
- Forma «pilocitica» giovanile
- Localizzazione principalmente emisferica (anche mediale, cerebellare, spinale)
- Più frequente in IV-VI decade
- Segni e sintomi caratteristici (cefalea, segni neurologici)
- Ampio spettro di differenziazione/prognosi
- Progressione basso >>> alto grado

	I	II	III	IV
Astrocytic tumours				
Subependymal giant cell astrocytoma	•			
Pilocytic astrocytoma	•			
Pilomyxoid astrocytoma		•		
Diffuse astrocytoma		•		
Pleomorphic xanthoastrocytoma		•		
Anaplastic astrocytoma			•	
Glioblastoma				•
Giant cell glioblastoma				•
Gliosarcoma				•



gliomi



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neoplasie oligodendrogliali

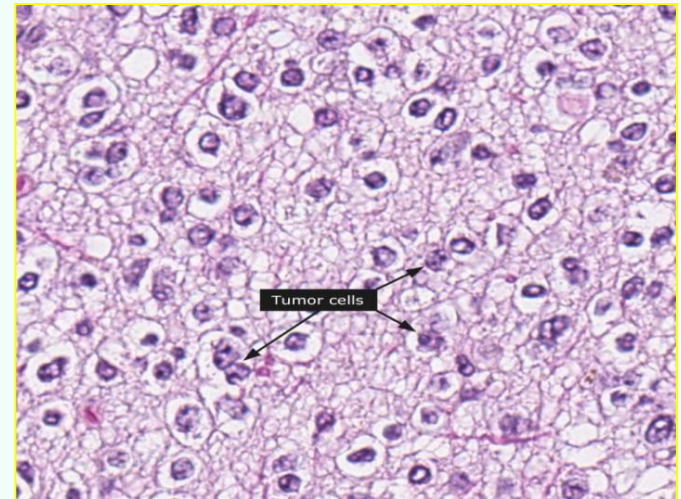
• Oligodendroglioma	9450/3
• Oligodendr. anaplastico	9451/3

Oligodendroglial tumours	I	II	III	IV
Oligodendroglioma		•		
Anaplastic oligodendroglioma			•	
Oligoastrocytic tumours	I	II	III	IV
Oligoastrocytoma		•		
Anaplastic oligoastrocytoma			•	

neoplasie del tessuto neuroepiteliale

Neoplasie oligoastrocitarie

• Oligoastrocitoma	9382/3
• Oligoastroc. anaplastico	9382/3



neoplasie dei plessi corioidei

- Papilloma dei pl. corioidei 9390/0
- Papill. dei p.c. atipico 9390/1
- Carcinoma dei pl. corioidei 9390/3

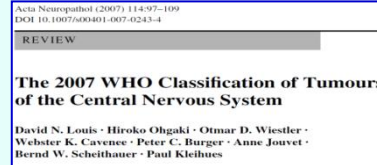
Choroid plexus tumours	I	II	III	IV
Choroid plexus papilloma	•			
Atypical choroid plexus papilloma		•		
Choroid plexus carcinoma			•	

altre neopl. neuroepiteliali

- Astroblastoma 9430/3
- Glioma cordoide del III ventr. 9440/1
- Glioma angiocentrico 9431/1

Other neuroepithelial tumours	I	II	III	IV
Angiocentric glioma	•			
Chordoid glioma of the third ventricle		•		

neoplasie del tessuto neuroepiteliale



neoplasie ependimali

- Subependimoma 9383/1
- Ependimoma mixopapillare 9394/1
- Ependimoma 9391/3
 - E. cellulare 9391/3
 - E. papillare 9393/0
 - E a cellule chiare 9391/3
 - E. tancitico 9391/3
- Ependimoma anaplastico 9392/3

Ependymal tumours	I	II	III	IV
Subependymoma	•			
Myxopapillary ependymoma	•			
Ependymoma		•		
Anaplastic ependymoma			•	

neoplasie neuronali e miste neurono-gliali

- Gangliocitoma cerebell. displastico
- Astrocitoma/ganglioglioma desmoplastico infantile
- Tumore neuroepiteliale disembrionoplastico
- Gangliocitoma
- Ganglioglioma
- Ganglioglioma anaplastico
- Neurocitoma centrale
- Neurocitoma extraventricolare
- Liponeurocitoma cerebellare
- Tumore papillare glioneuronale
- Tumore glioneuronale del IV ventricolo formante rosette
- Paranglioma

9430/0
9412/1
9413/0
9492/0
9505/1
9505/3
9506/1
9506/1
9506/1
9509/1
9509/1
8680/1

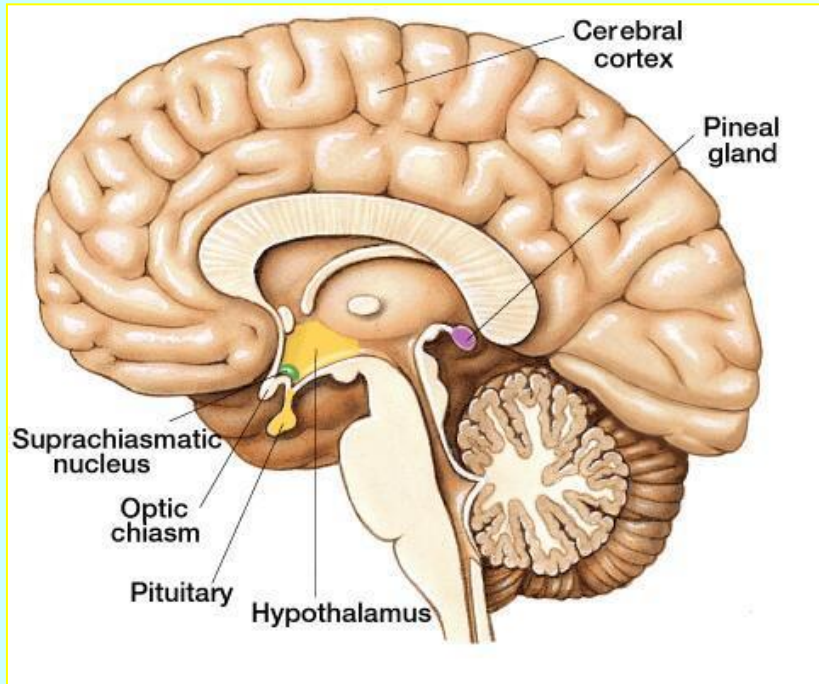
neoplasie del tessuto neuroepiteliale

Caratteri clinico-biologici

- Costituiti da cellule neuronali «normali»
- Più freq. tra le forme «pure»: ganglioglioma
- Spesso compresenza cell. Gliali
- Crescita lenta
- Progressione rapida per anaplasia gliale
- Manifestazioni neurologiche (epilessia)
- Terapia chirurgica

	I	II	III	IV
Neuronal and mixed neuronal-gliial tumours				
Gangliocytoma	•			
Ganglioglioma	•			
Anaplastic ganglioglioma			•	
Desmoplastic infantile astrocytoma and ganglioglioma	•			
Dysembryoplastic neuroepithelial tumour	•			

	I	II	III	IV
Neuronal and mixed neuronal-gliial tumours				
Central neurocytoma		•		
Extraventricular neurocytoma		•		
Cerebellar liponeurocytoma		•		
Paranglioma of the spinal cord	•			
Papillary glioneuronal tumour	•			
Rosette-forming glioneuronal tumour of the fourth ventricle	•			



neoplasie del tessuto neuroepiteliale

neoplasie della regione pineale

- Pineocitoma 9361/1
- T. pineale parench. a diff. intermedia 9362/3
- Pineoblastoma 9362/3
- Tumore papillare della reg. pineale 9395/3

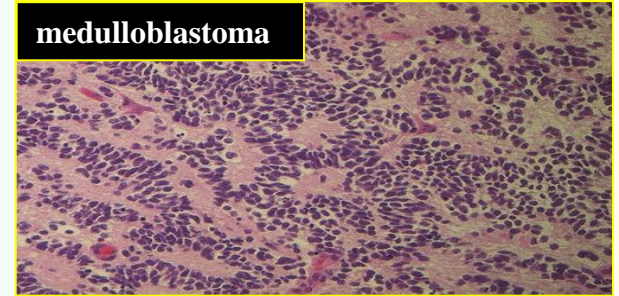
Pineal tumours	I	II	III	IV
Pineocytoma	•			
Pineal parenchymal tumour of intermediate differentiation		•	•	
Pineoblastoma				•
Papillary tumour of the pineal region		•	•	

neoplasie embrionali

- Medulloblastoma
 - M. desmoplastico/nodulare 9470/3
 - M. con nodularità estensive 9471/3
 - M. anaplastico 9471/3
 - M. a grandi cellule 9474/3
- Tumore primitivo neuroectodermico del SNC 9473/3
 - Neuroblastoma del SNC 9500/3
 - Ganglioneuroblastoma del SNC 9490/3
 - Medulloepitelioma 9501/3
 - Ependimoblastoma 9392/3
- T. atipico teratoide/rabdoide 9508/3

neoplasie del tessuto neuroepiteliale

medulloblastoma



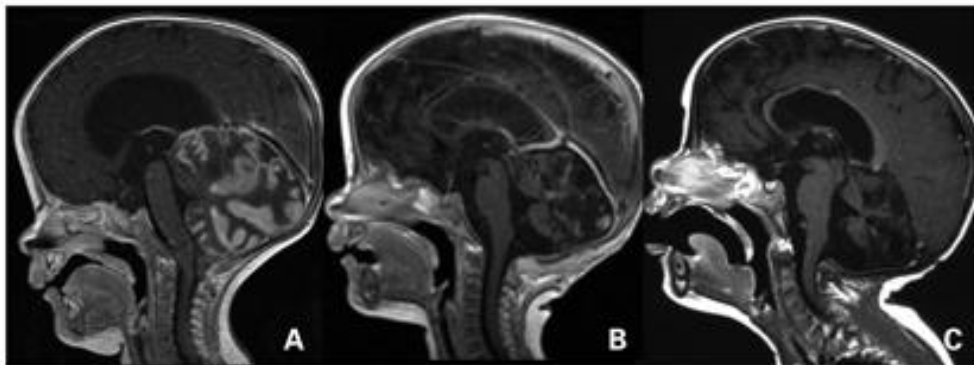
Embryonal tumours	I	II	III	IV
Medulloblastoma				•
CNS primitive neuroectodermal tumour (PNET)				•
Atypical teratoid / rhabdoid tumour				•



Caratteri clinico-biologici (medulloblastoma)

- **Insorgenza nei bambini**
- **Localizzazione cerebellare (mediale)**
- **Espressione di markers neuronali e gliali**
- **Aspetto indifferenziato**
- **Derivazione «embrionale»**
- **Comportamento aggressivo**
- **Altamente radiosensibile**
- **Prognosi discreta (OS 75% a 5 anni post chirurgia e rx terapia)**
- **Forme simili (CNS PNET) anche sovratentoriali differenti da MB e da PNET periferici**

neoplasie del tessuto neuroepiteliale



Neoplasie dei nervi craniali e paraspinali

- Schwannoma
 - S. cellulare 9560/0
 - S. plessiforme 9560/0
 - S. melanotico 9560/0
- Neurofibroma 9540/0
 - N. plessiforme 9550/0
- Perineurioma, NAS 9571/0
 - P. maligno 9571/3
- Tum. maligno delle guaine nervose periferiche (MPNST)
 - MPNST epitelioide 9540/3
 - MPNST a differenz. mesenchimale 9540/3
 - MPNST melanotico 9540/3
 - MPNST con differenziazione ghiandolare 9540/3

Tumours of the cranial and paraspinal nerves

	I	II	III	IV
Schwannoma	•			
Neurofibroma	•			
Perineurioma	•	•	•	
Malignant peripheral nerve sheath tumour (MPNST)		•	•	•

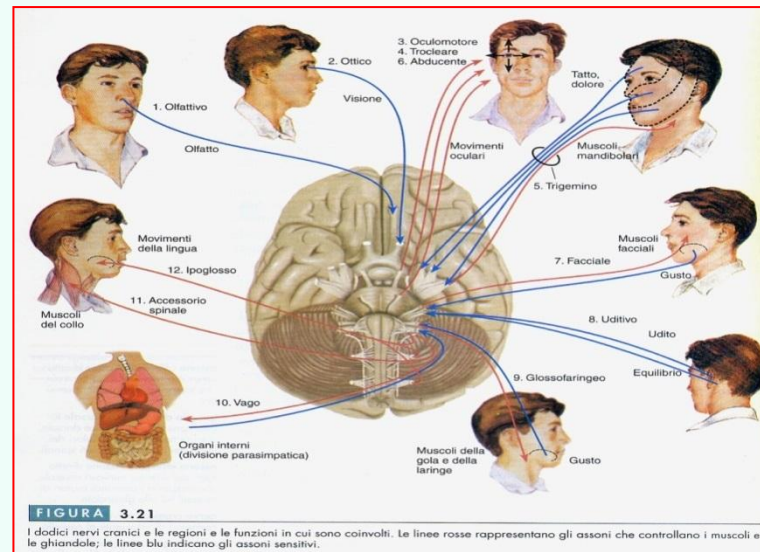
neoplasie dei nervi

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DOI 10.1007/s00401-007-0243-4

REVIEW

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tumori delle cellule germinali

• Germinoma	9640/3
• Carcinoma embrionale	9070/3
• Tumore del sacco vitellino	9071/3
• Coriocarcinoma	9100/3
• Teratoma	9080/1
• Maturo	9080/0
• Immaturo	9080/3
• Con trasf. maligna	9080/3
• Tum. germ. a cell. miste	9085/3

altre neoplasie del SNC

linfomi e neopl. emopoietiche

• Linfoma maligno	9590/3
• Plasmocitoma	9731/3
• Sarcoma granulocitico	9930/3

localizzazioni metastatiche

- Carcinomi
 - Polmome
 - Mammella
 - Rene
 - Gastrointestino
- Melanoma

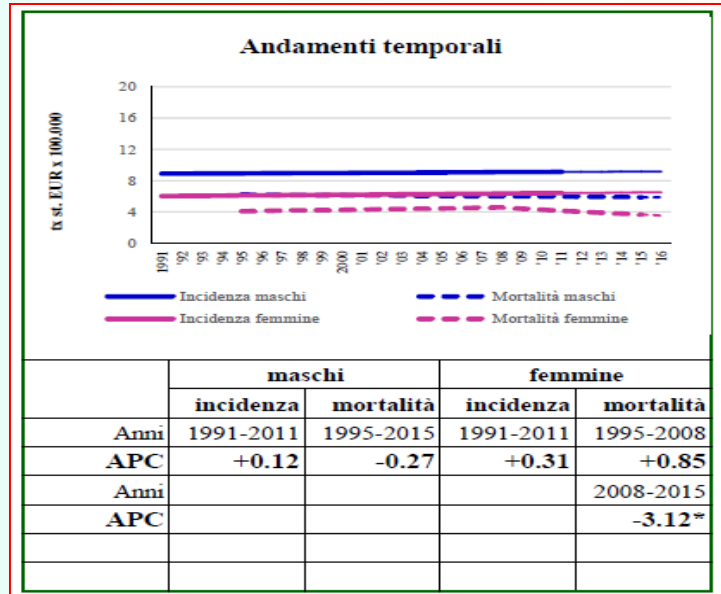
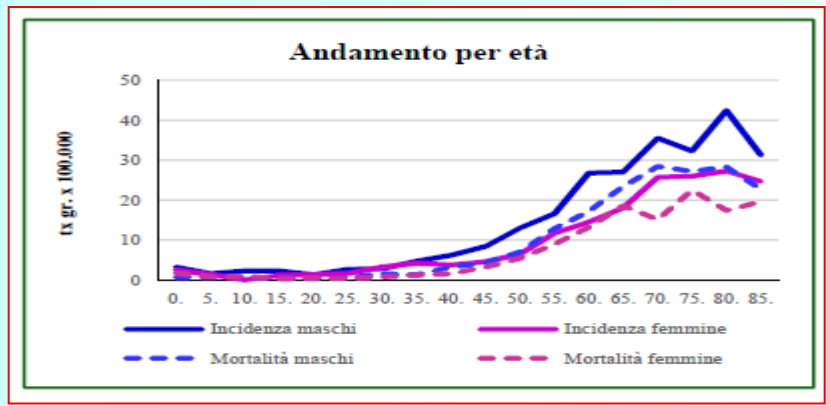
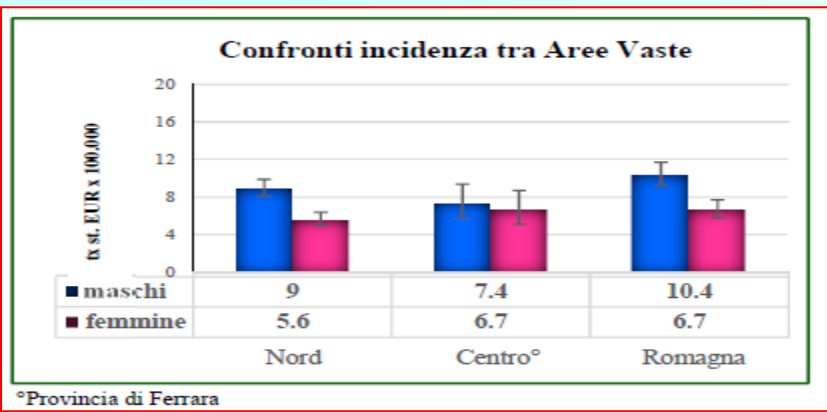
80%



neoplasie

incidenza, mortalità

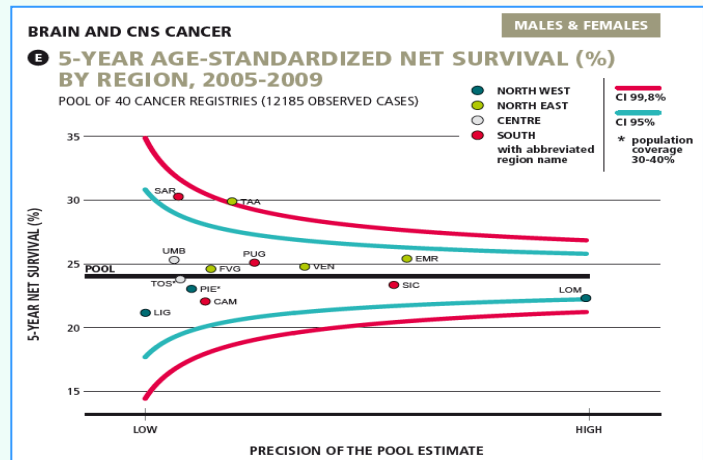
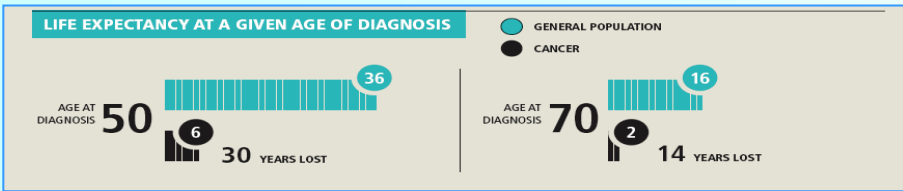
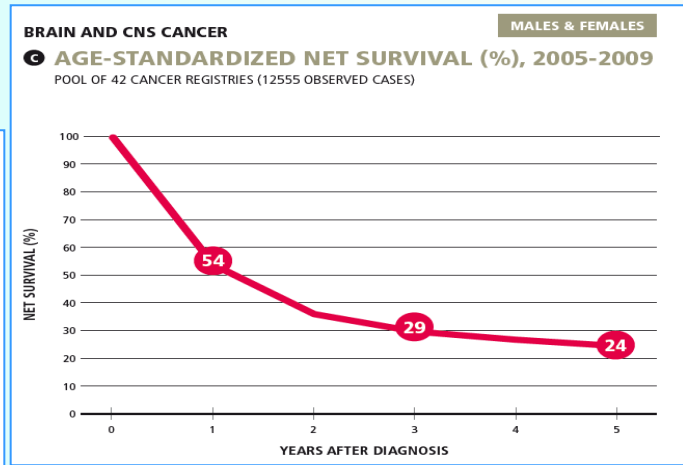
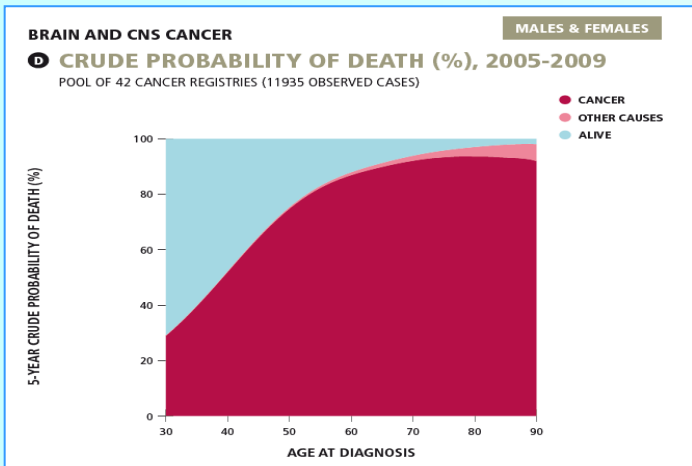
Emilia-Romagna, 2016



APC: variazione percentuale annua * p<0,05

neoplasie

Sopravvivenza





Pool of Italian Cancer Registries - 1 January 2010

ENCEFALO E SNC

BRAIN AND CNS

(ICD-10 C70-72)

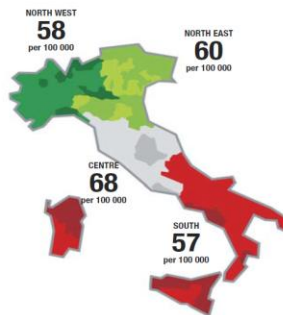
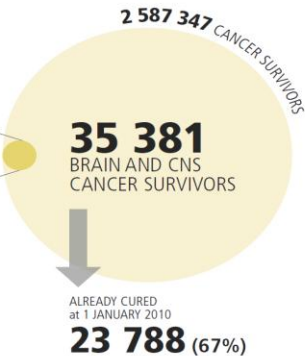
COMPLETE PREVALENCE BY YEARS SINCE DIAGNOSIS

YEARS →	≤ 2	(2 - 5]	(5 - 10]	(10 - 15]	(15 - 20]	> 20
No. →	5 554	3 284	3 807	3 337	2 710	16 688
% →	16%	9%	11%	9%	8%	47%
PROPORTION PER 100 000 →	10	6	6	5	4	28

MALE 46% FEMALE 54%

COMPLETE PREVALENCE BY SEX, MACRO-AREA, AND AGE (PROPORTION PER 100 000)

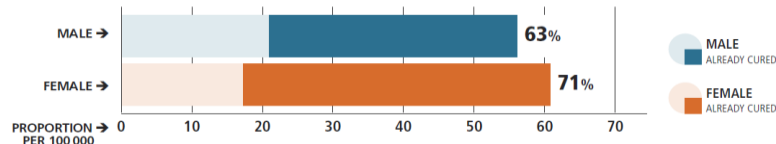
AGE CLASS →	0-44	45-59	60-74	75+	ALL AGES
MALE					
NORTH WEST	40	65	86	54	55
NORTH EAST	39	79	101	47	59
CENTRE	46	90	113	81	69
SOUTH	41	65	78	68	53
POOL	41	72	91	58	56
FEMALE					
NORTH WEST	40	73	90	71	61
NORTH EAST	37	82	101	63	61
CENTRE	44	83	72	124	67
SOUTH	38	81	103	72	60
POOL	39	79	97	72	61
BOTH SEXES					
NORTH WEST	40	69	88	65	58
NORTH EAST	38	80	101	57	60
CENTRE	45	86	92	108	68
SOUTH	39	73	91	70	57
POOL	40	76	94	66	59



neoplasie

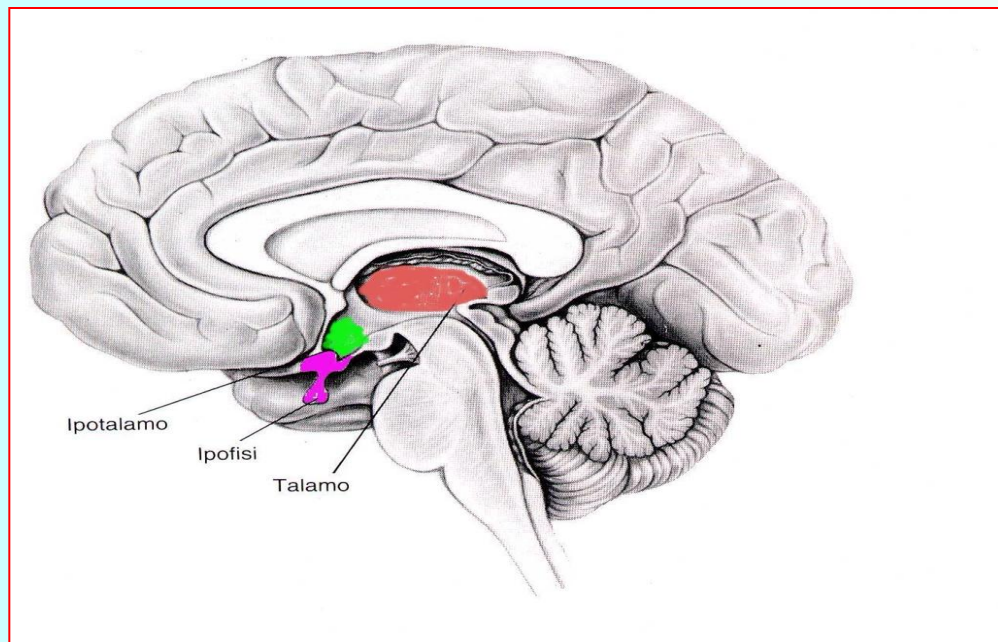
Prevalenza

COMPLETE PREVALENCE AND PROPORTION OF ALREADY CURED SURVIVORS BY SEX



CURE FRACTION AND TIME TO CURE BY AGE AT DIAGNOSIS AND SEX FOR CANCER PATIENTS DIAGNOSED IN ITALY IN 1985-2009

AGE AT DIAGNOSIS	CURE FRACTION %		AGE AT DIAGNOSIS	TIME TO CURE YEARS	
	MALE	FEMALE		MALE	FEMALE
0 - 44	39%	46%	0 - 44	7	7
45 - 59	10%	13%	45 - 59	9	10
60 - 74	1%	2%	60 - 74	10	11
75+	0%	0%	75+	-	-



Ipofisi e sella turcica

neoplasie sellari

tumori della regione sellare

- | | |
|--|---------------|
| • Craniofaringioma | 9350/1 |
| • Adamantinomatoso | 9351/1 |
| • Papillare | 9352/1 |
| • Tum. a cellule granulari | 9582/0 |
| • Pituicitoma | 9432/1 |
| • Oncocitoma a cell. fusate dell'adenoipofisi | 8290/1 |

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REVIEW

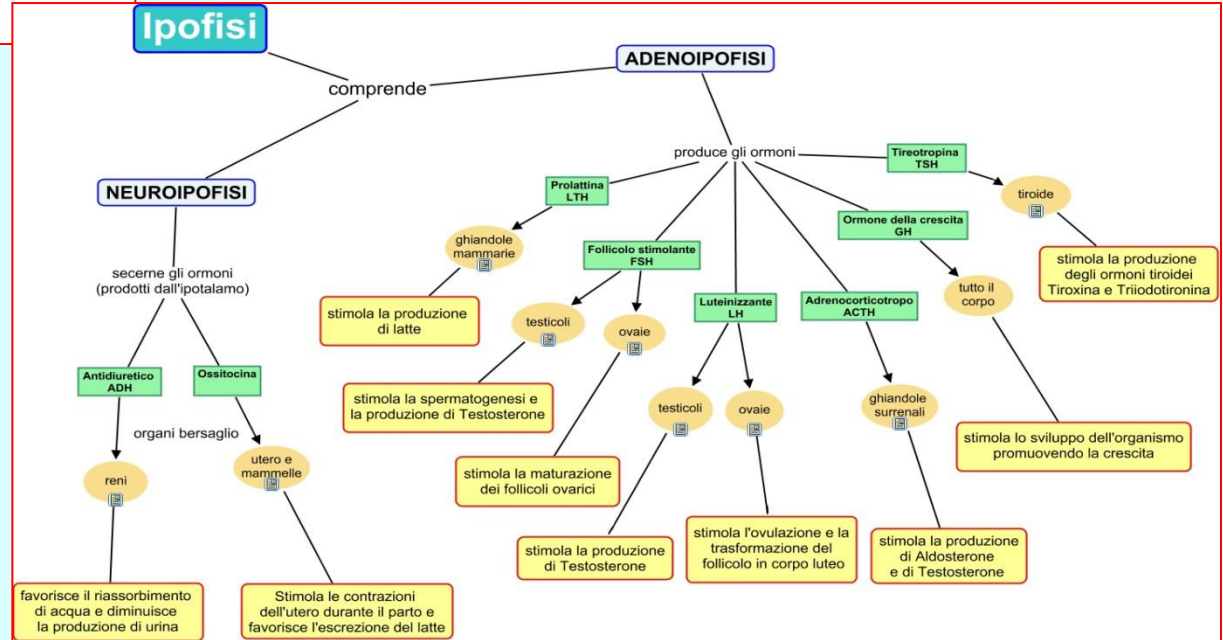
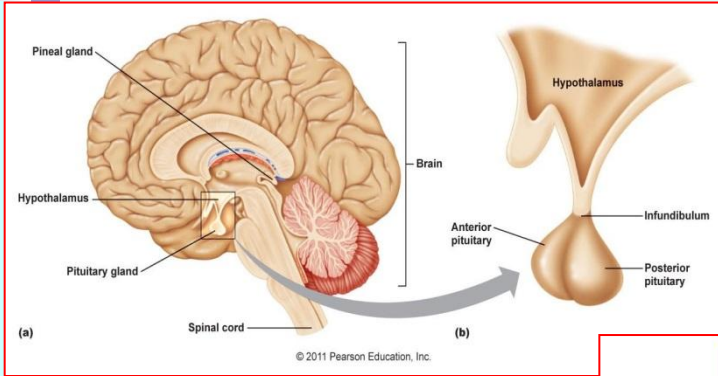
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Tumours of the sellar region	I	II	III	IV
Craniopharyngioma	•			
Granular cell tumour of the neurohypophysis	•			
Pituicytoma	•			
Spindle cell oncocytoma of the adenohypophysis	•			



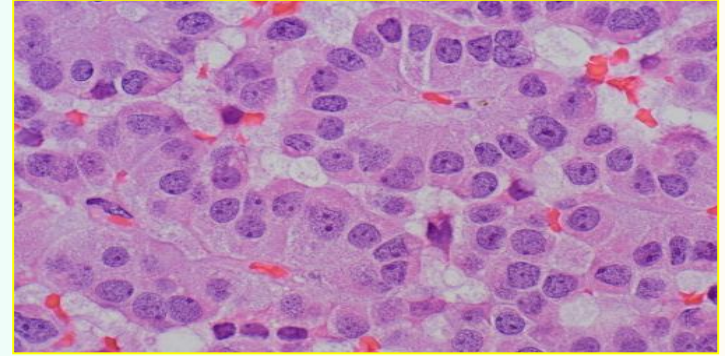
neoplasie dell'ipofisi



Tumori ipofisari

- Tum. secernenti prolattina (PRL) 8271/0
- Tum. secernenti ormone adenocorticotropo (ACTH) -
- Tum. secernente ormone della crescita (GH) -
- Tum. Secernente tireotropina (TSH) -
- Tum. Secernente gonadotropine (FSH-LH) -
- Adenomi pluriormonali -
- Adenomi non funzionanti 8272/0
- Tumori oncocitari 8290/0
- Carcinomi 8272/3
- Altri tumori
- Tumori metastatici

neoplasie dell'ipofisi



Clinica

- Produzione inappropriata di ormoni
- Deficit del campo visivo
- Paralisi nervi cranici
- Epilessia temporale
- Idrocefalo
- Rinorrea (liquorrea)



Continua...

