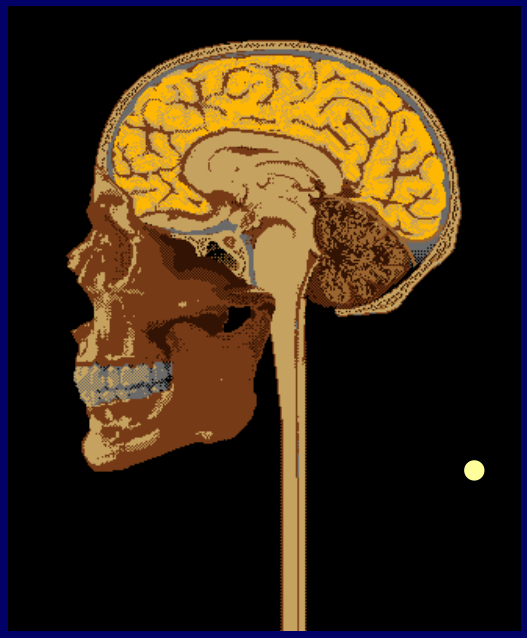


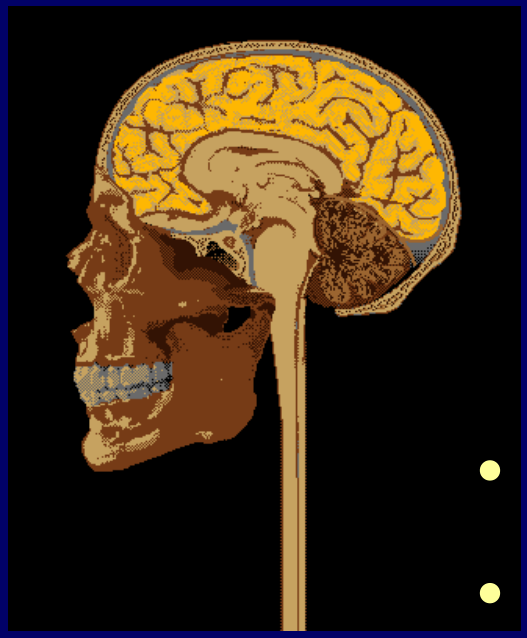
Prevention of PIVH in Neonates

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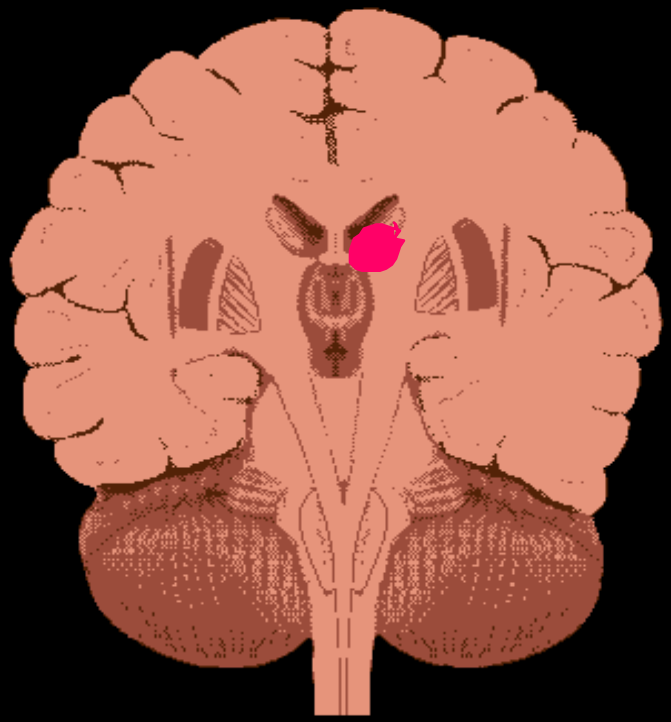
PIVH

- Definition - incracranial hemorrhage arising in the germinal matrix and periventricular regions - preterm
- Incidence - 30-40 % - less 1500g - 50-60 % - less 1000 g
- 60% first 24 hours
- 85% first 72 hours , 95% first week



PIVH risk

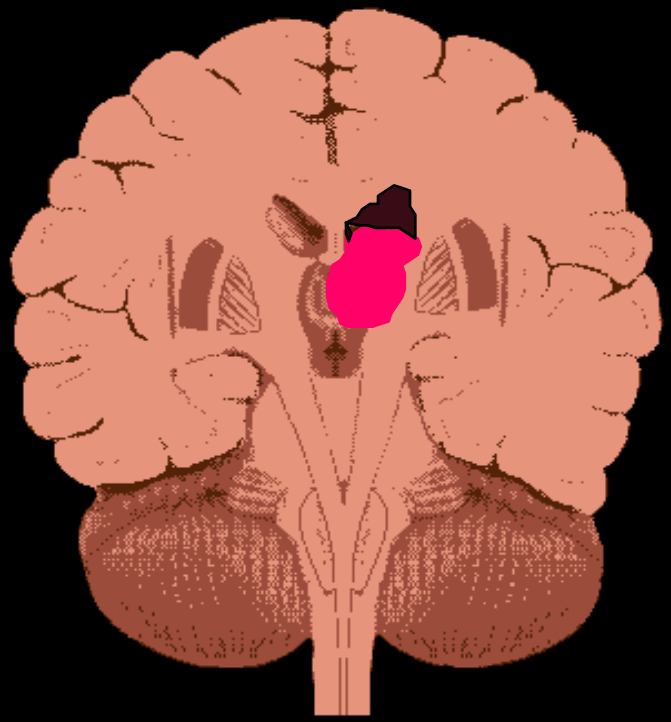
- extreme prematurity
- birth asfyxia
- RDS, PNO, PDA, CVP,
- sudden rise in ABP
- NaHCO3, blood volume,
- ventilation ? sedation ? synchron.?
- team work ?





Small germinal matrix hemorrhage (PIVH I)

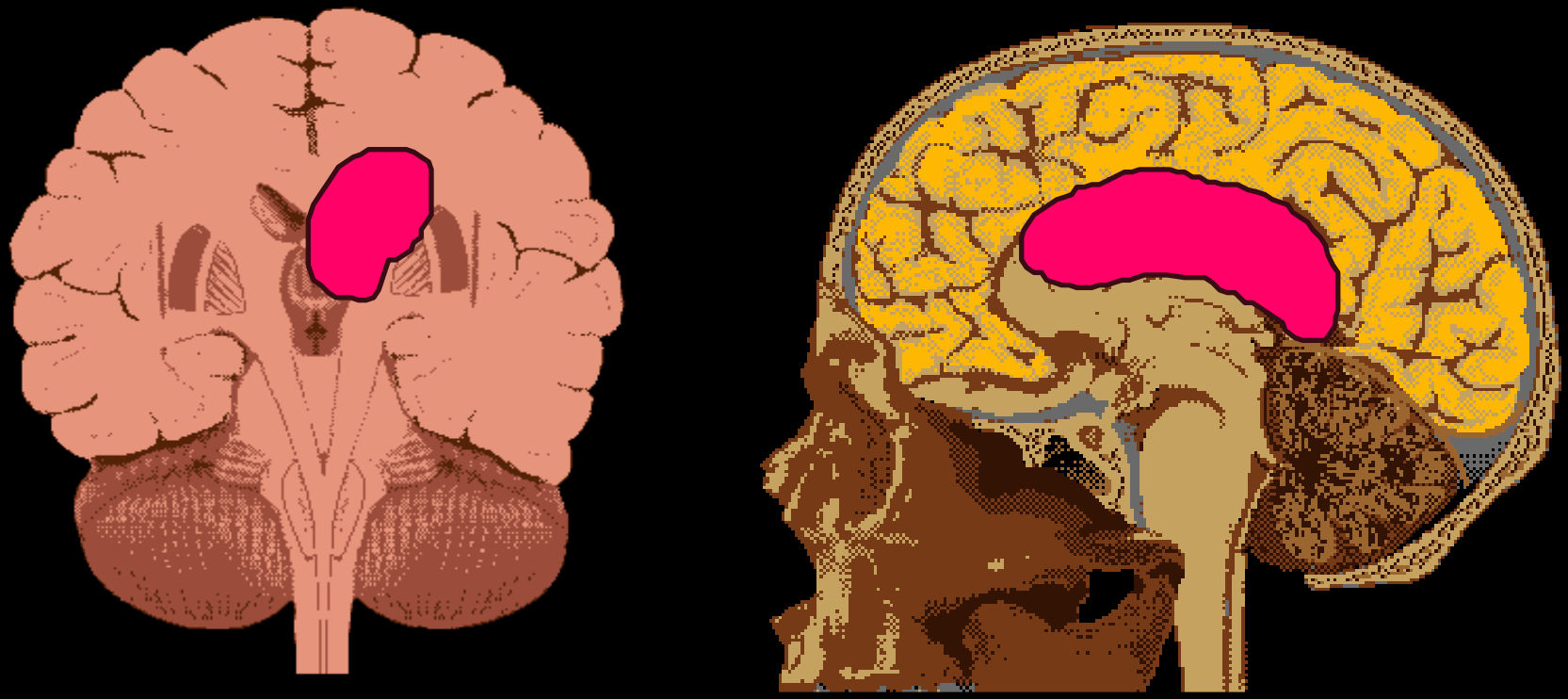
Grade I intraventricular hemorrhage





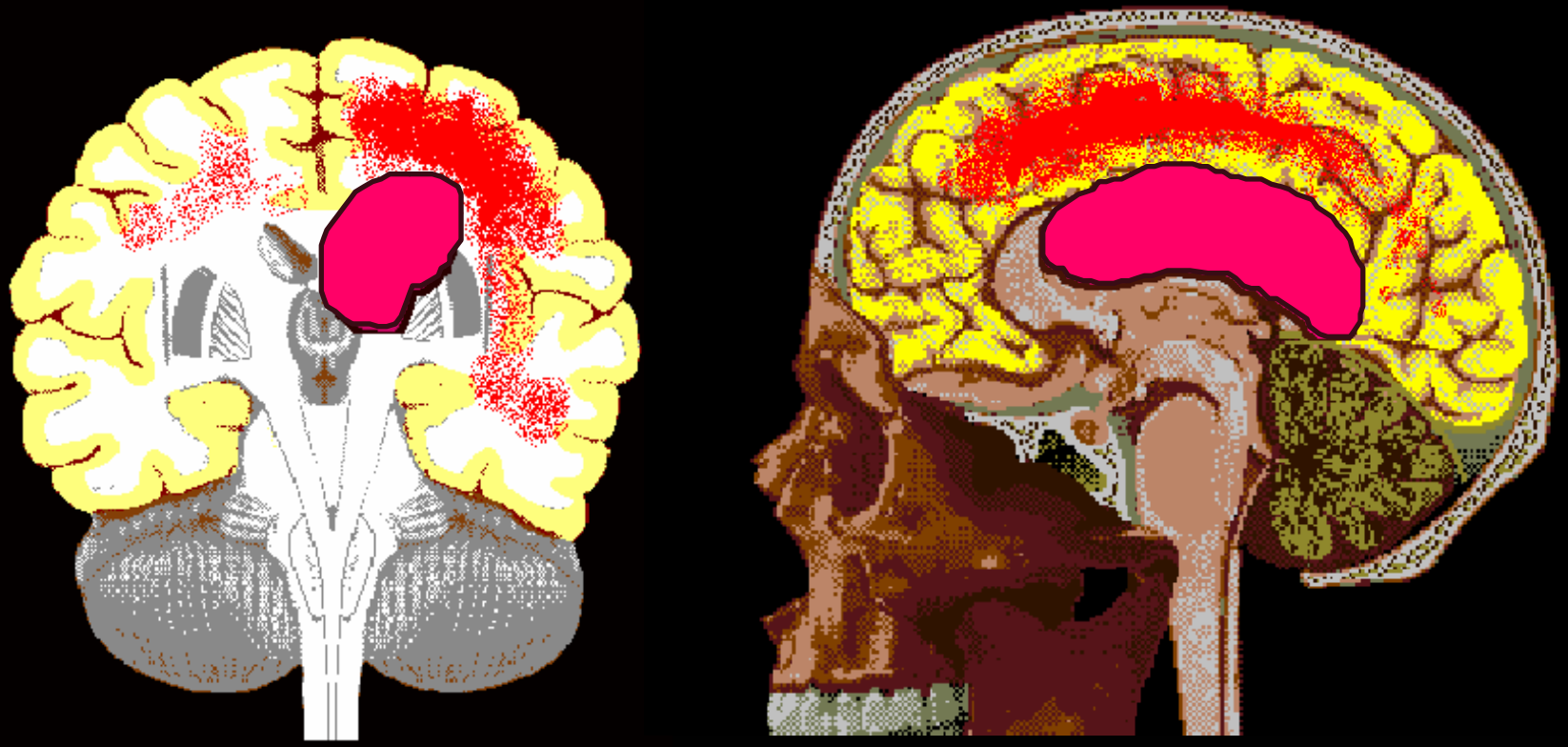
Germinal matrix hemorrhage but minimal ventricular enlargement (PIVH II)

Grade II intraventricular hemorrhage



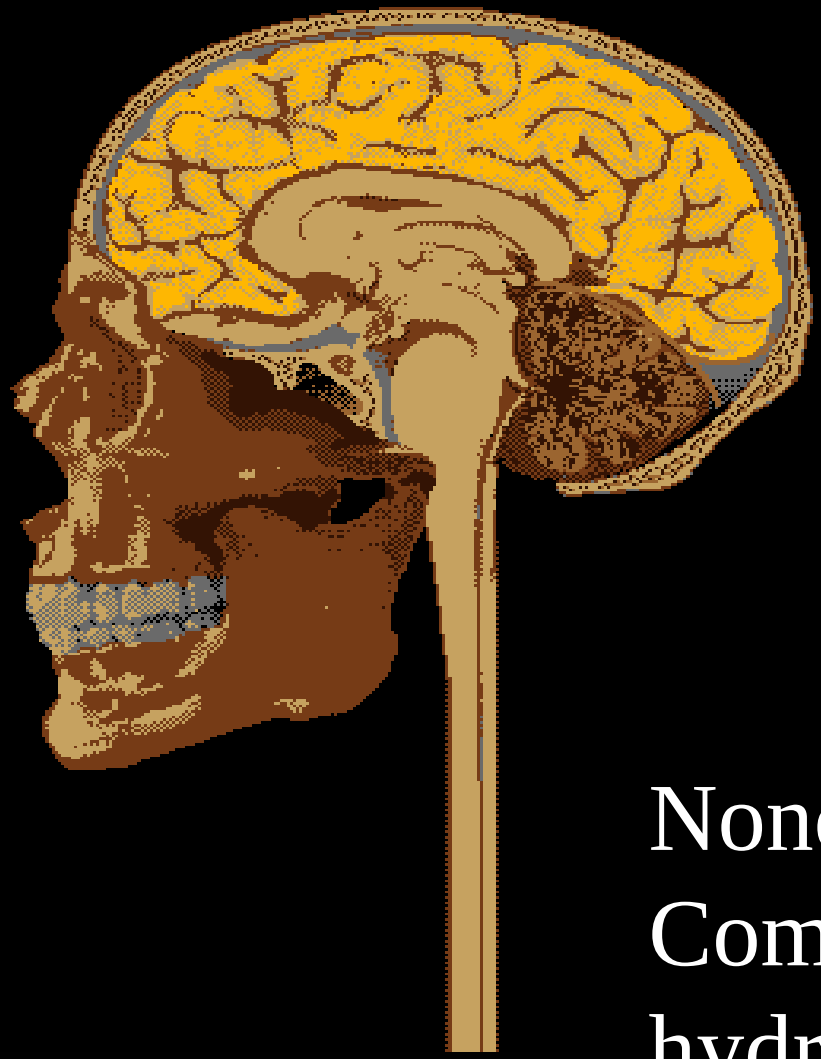
Large intraventricular hemorrhage with ventricular enlargement (PIVH III)

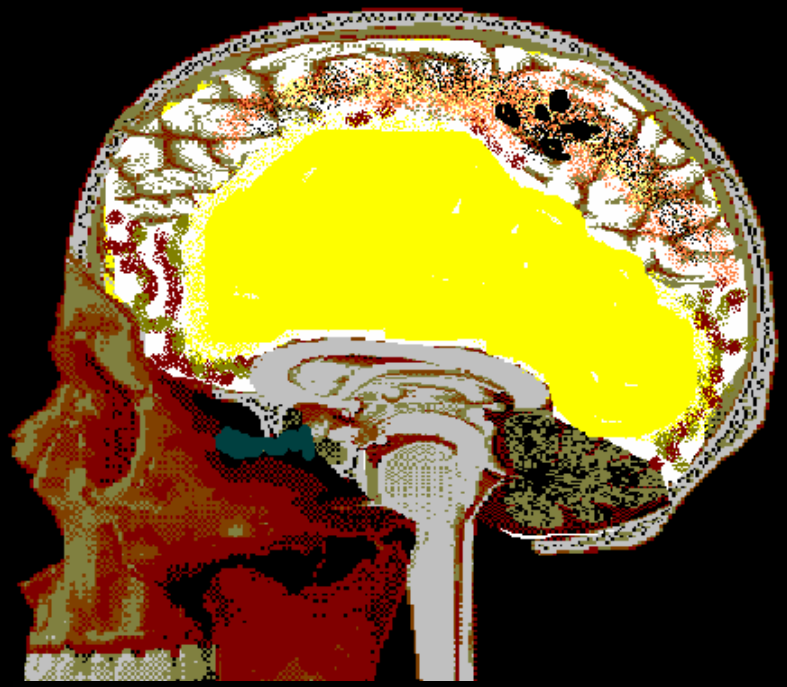
Grade III intraventricular hemorrhage



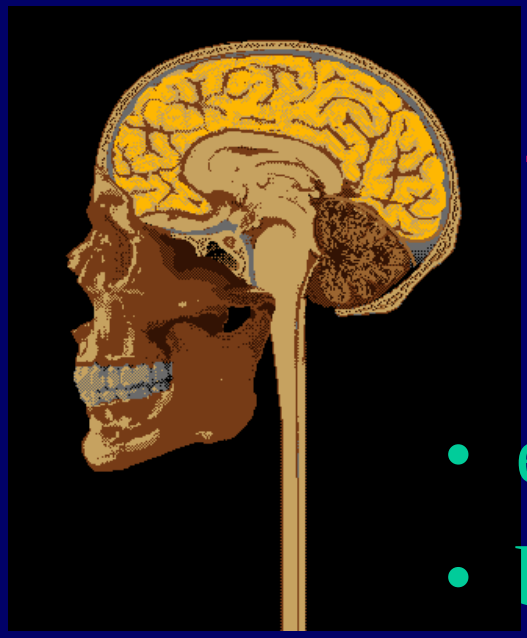
Large intraventricular and intraparenchymal hemorrhage (PIVH IV)

Grade IV intraventricular hemorrhage



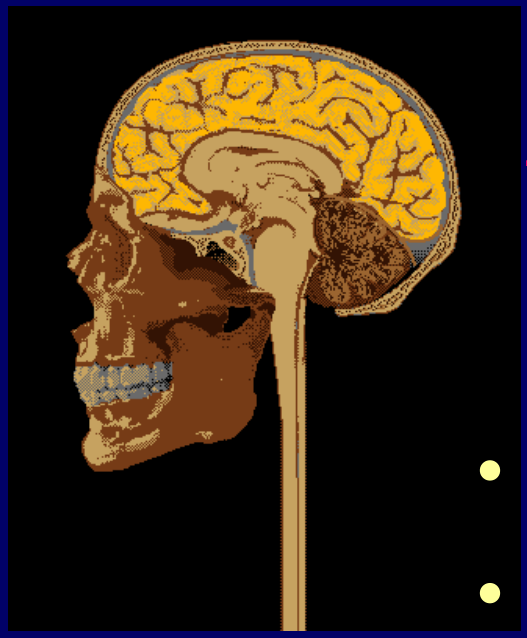


Noncommunicating or Communicating hydrocephalus



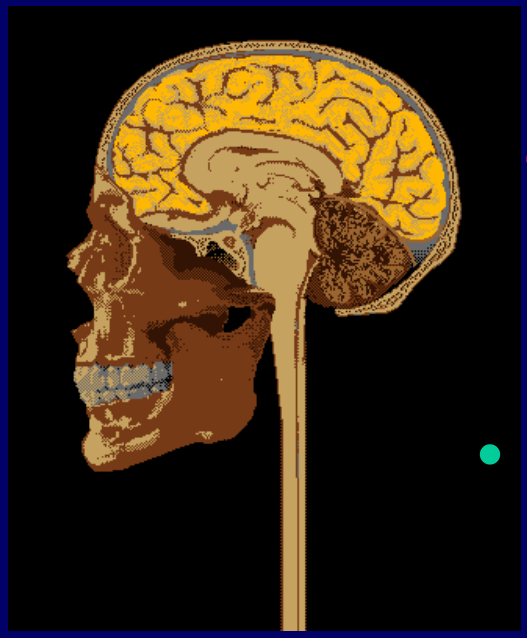
PIVH management

- extreme prematurity
- birth asfyxia
- **RDS, PNO, PDA, CVP,**
- **sudden rise in ABP, CO2 , Doppler**
- **NaHCO3, blood volume,**
- **ventilation ? sedation ? synchron.?**
- **team work ?**



PIVH pharmac.preven.

- Phenobarbital - mother, infant
- Vitamin K - mother, infant
- Pancuronium - infant
- Indomethacin - infant
- Ethamsylate - infant
- Vitamin E - infant ?



PIVH prognosis

- PIVH I-II no increase in morbidity and mortality rates (comp. with no IVH in 5 years)
- PIVH III 75 % - developmental delays
- PIVH IV - 90% die or severe developmental delays

Thank You
for Your
Attention !

