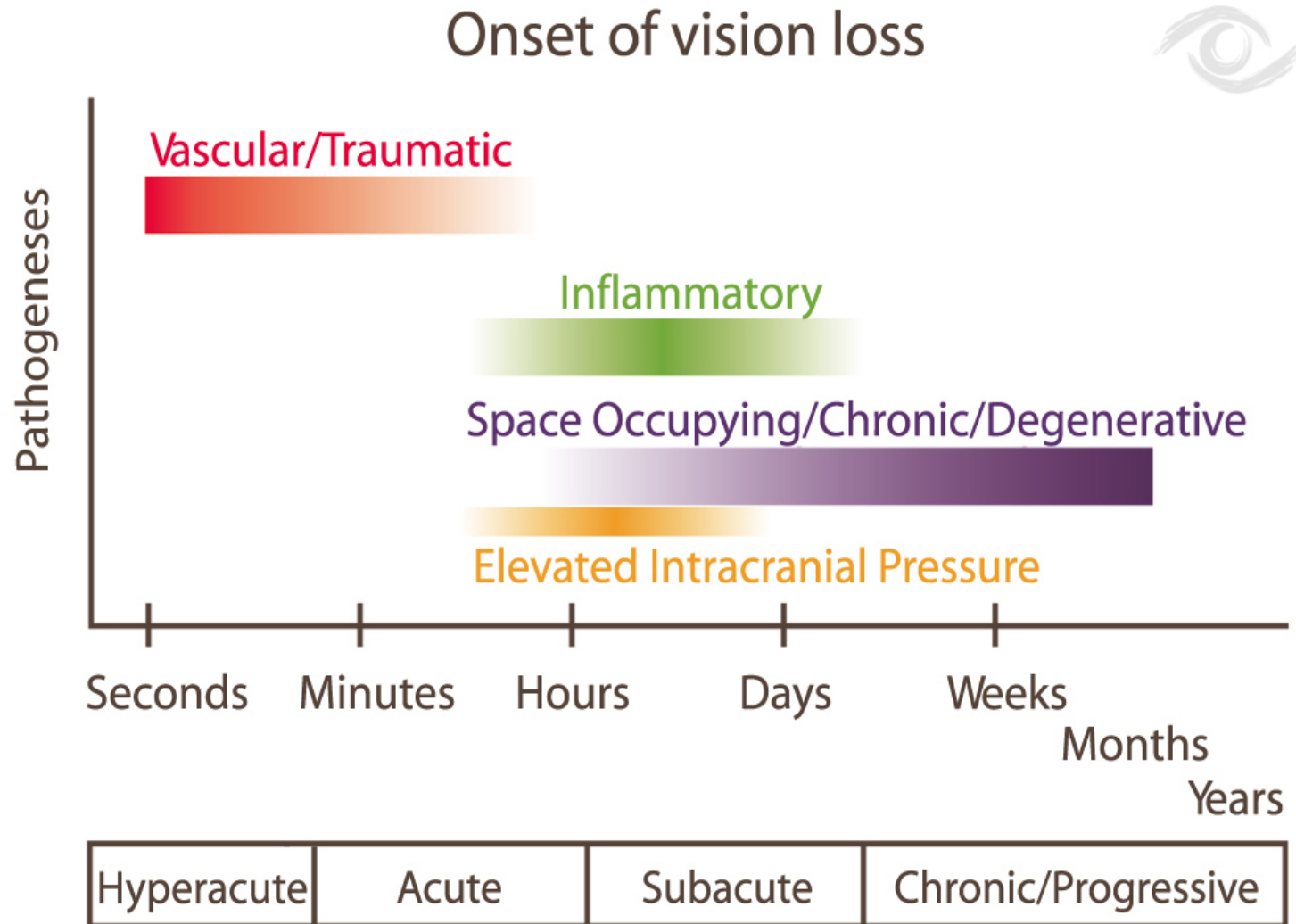
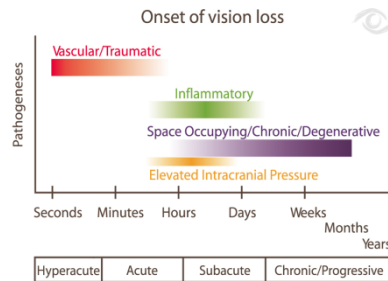


# Traumatic Optic Neuropathy (TON)



# Traumatic Optic Neuropathy (TON)

## 1./ TIME factor – important !



**SHEARING effect :** *in closed Cranial- T + closed TON:*

- **defect of microcirculation**
- **secondary edema (brain-, optic canal)**
- **swelling of substance**

circulation disorders+ cellular edema - hypoxia

## 2./ Diagnosis - late recognition – reasons

- ✚ (un)consciousness, respiratory and circulatory disorders
- ✚ hidden by other neurological symptoms
- ✚ urgent operation - neurosurgical and/or traumatological

## 3./ Therapy - combined therapy suggested

- ✚ TON is as a part of (facial and/or brain) cranial trauma (direct or indirect)
- ✚ absolute indication: **before and/or after** neurosurgery-, neurointervention
- ✚ urgent + combined + simultaneous: (assure normovolaemia, normothermia)  
*diuretic + hyperventillation + barbiturat + corticosteroid therapy*

# Traumatic Optic Neuropathy (TON)

## RECOMMENDATION: combined medical treatment

### **STEROID: ( role is changing in TON)**

- ***not used by itself***  
*(part of basic tr. of cranial trauma)*
- ***used in lower dosis***

### ***indications***

- 1. papilla edema or normal papilla**  
*in acute phase of TON*
- 2. closed TON: secondary edema**  
*caused by indirect strong impact*
- 3. antechiasmal ON function disorders**  
*in case of any symptoms*
- 4. HIP, brain edema**  
*in case of any symptoms*

### **2. DIURETIC –HYPEROSMOTIC SOLUTION**

- mannit - Mannisol B
- furosemidum - Furon

### **Recommendations**

#### **I. METHYLPREDNISOLON**

*Solu-Medrol inj, Medrol tbl.,  
Metypred tbl.*

before and after operation: **125 mg iv.**

#### **II. DEXAMETHASON**

*Oradexon 5mg/ml,  
Dexamethason tbl 4mg*

#### **Higher- or megadosis NOT suggested:**

- **neither combined,**
- **or therapy in itself**  
*(not efficient in HIP, side effects)*

### **3. MICROCIRCULATION to be improved**

- pentoxifillinum
- piracetam
- vinpocetinum
- HAES-steril 6%, 10% infusion

# Traumatic Optic Neuropathy (TON)

## ***Extremely difficult to treat***

### ***Literature divided with regard to the role of steroid***

- 1./ *Too optimistic publications about therapies - based on case reports*  
***no evidence based studies***
- 2./ *Cold reception by the medical profession*  
***evidence based treatment required***
- 3./ *No matter how,*  
***but treatment should be given***  
***– as early as possible***
- 4./ *Therapy should be established on basis of*  
***an international consensus & guideline***