

Macrocytic Anemia/ Megaloblastic Anemia

MCV > 100 fL

Causes of Macrocytic anemia

Mnemonic: A₃T-129

Alcohol B₁ ↓ B₂ ↓ B₆ ↓ B₁₂ ↓

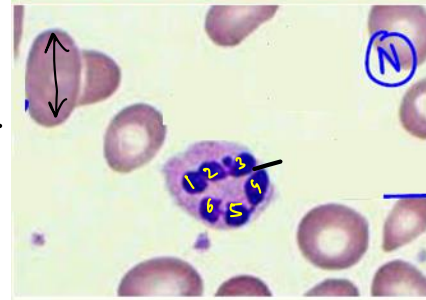
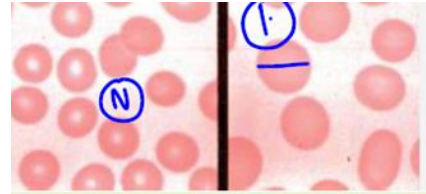
Autoimmune gastritis → parietal cells #: IF ↓

Aplastic anemia

Thyroid disease

Vitamin B12 deficiency

Vitamin B9 deficiency



P. smear : HYPERSEGMENTED NEUTROPHILS
* B₁₂ ↓

* B12 ↓ - WET BERI-BERI: CHF
 DRY " " : WERNICKE encephalopathy Optic atrophy
 Ataxia

Causes of B12 deficiency

Mnemonic: **AV-SIP**

1. MC Autoimmune gastritis M/C: anti-IF
anti-Parietal cells } **PERNICIOUS ANAEMIA**
2. Alcohol
3. Vegans
4. Stomach surgery **GASTRECTOMY**
5. Ileum disease **CROHN, TB** : MUCOSA ILEUM #, IF (n)
6. Chronic pancreatitis
 } **HYPERPIGMENTATION** - K
 } IPJ
 B12 = IF
 } pancreatic juice
 } (n) ileal mucosa
 } any ↓: Lacking

Clinical features

1. Anemia MCV > 100
 2. Demyelination of **spinal cord** of SC
 subacute demyelination
 3. Demyelination of **peripheral nerves**
 4. **DEMENTIA**
- Glove & stocking Anaesthesia
ARREFLEXIA

Investigation of choice

Nursing advice

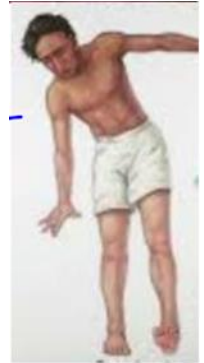
Inform client about **intake** of animal source food products since human body cannot produce vitamin B12

Compliance with supplementation of B12

* inj vitamin B12 1m, monthly 4-6
PERNICIOUS ANEMIA



SENSORY ATAXIA
 * **RHOMBERG SIGN**



↑ ↑

Assessment findings

1. Beefy tongue \pm
2. Pallor fatigue , ANEMIA
3. Weakness
4. Tinnitus
5. Palpitations

Nursing Advice

1. Green leafy vegetables $+$
2. Legumes
3. Meat
4. Liver and fish

MENIERE'S disease

Dizziness

VERTIGO

TINNITUS



Tests for vitamin B12 deficiency: SERUM vitamin B12, Schilling Test

Tests for Vitamin B9 deficiency: $FA \downarrow$ URINE Form-imino-glutamic acid Test

Safest AED in epileptic lady wanting to conceive soon : $\frac{\text{LEVETIRACETAM}}{\text{LAMOTRIGINE}}$

✓ Dose of folic acid in general population to prevent NTD 400 μ g OD

✓ Dose of folic acid in high risk lady with last pregnancy loss to anencephaly or she is on anti epilepsy medication 4mg OD