

Deficiency diseases of the infant and child

- Protein-caloric malnutrition
- Iron deficiency anemia
- Deficiency rickets

Protein-caloric malnutrition

- Weight small
in relation to age and damage waist in relation to age (if deficit nutrition is the term long)
- 0-1 year = dystrophy
- Over 1 year = weakness weight or stature - weight

Anthropometric criteria

- Assessment of the term short
 - Weight
 - Arm circumference
 - The thickness of the tricipital skin fold
- Assessment of the term long
 - Height
 - Cranial perimeter
- Weight index (real G / ideal G)
- In relation to weight there are 3 degrees of malnutrition
- I: $WI = 0.89-0.76$
- II: $WI = 0.75-0.61$
- III: $WI < 0.60$
- Nutritional index (real G / ideal G for waist)
- Degrees of severity of malnutrition after IN
- I: $NI = 0.89-0.81$
- II: $NI = 0.80-0.71$
- III: $NI < 0.70$
- Cranial perimeter
- In the first 2 years of life , the growth rate of PC correlates with the growth rate in length
- $CP (cm) = Size (cm) / 2 + 10$

Dispensing the malnourished child

- Family doctor
- In the phase of consolidating the nutritional recovery
 - Consult the fathers at home
 - Weekly in the first month
 - Then 2 times per month 2-3 months
- Monitors somatometric indicators and neuropsychic development
- Monitoring proper nutrition (food hygiene)
- Monitoring conditions of life

Iron deficiency anemia

- Favouring factors
- Fast rate of growth in the period of infant
- Exclusively dairy diet between 0-6 months
- Factors of risk specific to infant
- Perinatal bleeding
- Early sectioning of the umbilical cord
- Prematurity
- Small weight at birth
- Generality

Differential diagnosis

- Other hypochromic and microcytic anemias , but which are normosideremic or hypersideremic ,
 - Thalassemia minor (often confused with iron deficiency anemia)
 - Sideroblastic anemia
- Differential diagnosis of etiology
 - shortcomings of intake (diet exclusive milk the cow , diversification poor , excess of flour , diarrhea, chronic , syndrome of malabsorption)
 - loss of iron (allergy to proteins of the cow , polyps intestinal , NSAIDs, parasites gut , hematuria , hemoglobinuria)
 - Transport deficit
 - Diversion of iron (infections , inflammation of chronic neoplasia)

Treatment

- Oral
 - Indications
 - Hb <11 g / dl
 - Hematocrit <33%
 - Sideremia <50µg / dl or 9 µmol / l

Iron products

- Sulfate (at May well tolerated)
- Smoking
- Aspartate
- Glutamate

Duration of treatment

- 2-3 months

The favorable response to treatment (reticulocytic crisis) occurs after

- 7 days

Control blood count is done after 1 month

- The most frequent cause of lack of response to treatment with iron , for 1 month , is represented by minor thalassemia

Deficiency rickets

- Maximum incidence
- 3-6 months
- Flowery shape appears at the end of the first year of life

Causes of deficiency rickets

- application of incorrect or incomplete prevention of vitamin D
- Giving to prophylaxis with vitamin D after age 1 year
- Deprivation of the sun
- Increased degree of pollution
- arrangements supply unbalanced , with the excess of flour (phytates)
- Use of stoss prophylaxis
- Variations individual 's needs for vitamin D headlamp to adapt dose prophylactic
- Maintaining dose prophylactic in terms of appearance of the first signs of rickets

Forms of rickets

- Idiopathic
- Rickets with hypocalcemia or common Prader pseudorachitis
- Familial hypophosphatemic rickets
- Acquired
- disease chronic of kidney
- atresia horses biliary extrahepatic
- acidosis tubular renal distal
- Corticosteroid therapy
- Treatment with phenobarbital
- Treatment with phenytoin

Vitamin D

- 10 compounds
- Vitamin D2, ergocalciferol (ergosterol + ultraviolet rays)
- Vitamin D3, cholecalciferol (7-dehydrocholesterol + ultraviolet rays)

Sources of vitamin D

- Exogenous source
 - Animals
 - Vegetable
- Endogenous source

The most important sources :

- Veal liver
- Fish
- Egg yolk

The amount of endogenous vitamin D (7-dehydrocholesterol) depends on

- Skin pigmentation
- Exposed body surface
- method of exposure (UV don't pass through window)
- Season
- The degree of sunshine of the region

Favouring factors of deficiency rickets

- Regime of sunshine
- Prematurity
- Twinning
- Syndrome of malabsorption

- disease chronic of kidney
- Treatment with phenobarbital , valproic acid
- Prolonged corticosteroid therapy
- atresia of biliary extrahepatic ducts

Clinical and characteristic signs

- Bone marks
- Muscle ligament signs
- Biological
- Radiological

Bone marks

Changes in the skull

- Craniotabes
- Front boss
- Boss parietal
- Occipital flattening
- Cranial asymmetries
- Delay in closing the fontanelles
- Delay in the appearance of dentition
- Change of the dentition appearance order
- Dental dystrophies

Changes to the thorax

- Dorso-lumbar kyphosis
- swelling of chondrocostal joints (rosary rib)
- Antero - posterior palpitations of the thorax
- Widening of the chest base
- Submammary depression (Harrison ditch)

Changes in the limbs

- Developing tissue osteoid at the extremity distal to the radius (bracelets rickets)
- Bending of the lower limbs (genu varum, genu valgum)
- Decreasing pool diameters (important for girls)
- Coxa vara

Musculoskeletal signs

- Ligament hyperlaxity
- Muscular hypotonia
- Delay in the installation of the baby 's motor acquisitions
- Kyphotic attitude
- abdominal distension with umbilical hernia

Biological - evolutionary changes

- Initial = hypocalcemia
- PTH = normocalcemia with hypophosphatemia
- Exhaustion intervention PTH
= hypocalcemia , hypophosphatemia , increased phosphatase alkaline, level low of metabolites of vitamin D level increased PTH

Biological investigations are required only if

- The clinical diagnosis is uncertain
- There are serious clinical signs of rickets
- There is a lack of response to the usual doses of vitamin D.

Radiological

- At the level of the cartilage area
 - Deformation in the cup
 - Fringing of the metaphyseal-epiphyseal line
 - Delay of ossification
- The diaphyseal level
 - Accentuated demineralization
 - Thinning of the cortex
 - Periosteal doubling
 - Zone rectilinear radiolucent = line of pseudofracture
 - Deformation
 - Fractures

Deficiency treatment

- Initiation of curative treatment is done if at least two characteristic clinical signs are observed

Evolution

- Biological changes normalize after
 - 7-10 days
- Radiological healing begins after
 - 2-3 weeks
- Bone clinical signs disappear after
 - 1-2 months

Immediate prognosis

- Favorable after treatment

Sequelae (in untreated or insufficiently treated deficiency rickets)

- Irreversible skeletal deformities
- Genu varum
- Genu valgum
- Chest deformities
- Dorsolumbar kyphosis
- Deformations of the pelvis that generate dystocic pelvis in adulthood
- Dwarfism

Adolescent health assistance

- Disorders of behavior of adolescent
 - Delinquency
 - Addiction to licit and illicit substances
- Diseases of transmitted sexually
- Chronic fatigue syndrome

Delinquency

Predominant biogenic factors

- Post - infectious or post- traumatic secondary encephalopathies
- Ol and waffles
- Sequelae after meningitis
- Epilepsy
- Psychopaths
- Neurosis
- Delinquency

Predominant psycho- sociogenic factors

- Family dissociation
- Absence of family environment
- The economic and social situation of the family
- Deficiencies of nature education
- The harmful influences of some groups of young people

Addiction to licit and illicit substances

Licit substances

- Tobacco
 - Smoking = over 10 cigarettes a day
- Alcohol
 - The risk of dependence is 1.5 times greater if the father is alcoholic and 3 times higher if the mother is an alcoholic

Illicit substances

- Cannabis
 - Does not cause physical dependence
 - Produces mental dependence after prolonged use
- Heroin
- Cocaine
 - Extreme mental dependence
 - It is associated with fetal malformations
- Amphetamines
 - The term short : aggression exacerbated
 - The term long: exhaustion physical , feeling depressed or anxious with the risk of suicide

Clues that may suggest use of drugs

- Low attention to physical appearance and clothing
- Loss of appetite food with decreasing weight unexplained
- Flushing conjunctival - use common apicaturilor for eyes
- Absenteeism and resulting bad at school
- Loss of interest in previously for some activities school or extracurricular
- Removal from family and friends
- Contemptuous behavior towards family and friends
- Lying and stealing
- Hostile , violent attitude
- Disinterest and lack of future plans

Sexual Transmitted Diseases

- Major STD
 - Syphilis
 - Neisseria gonorrhoeae
 - Inguinal granuloma
 - Inguinal lymphogranulomatosis
- Minor STD
 - urethritis nongonococcal (Chlamydia , mycoplasma, candida albicans, trichomonas vaginalis)
 - Herpes simplex virus
 - Viral hepatitis B, C
- HPV, HIV

Chronic fatigue syndrome

- Fatigue that lasts for at least 6 months , which does not improve significantly the rest
- Unknown etiology
 - Viral or bacterial infection
 - Diseases of the immune , nervous , endocrine systems

Symptoms associated with CFS

- Forgetting , memory loss
- Condition confusional or difficulty of concentration
- Sore throat
- Slightly enlarged lymph nodes in the axillary or laterocervical level
- Muscle aches
- Joint pain without signs of inflammation
- Headache
- Sleep poor quality (the awakening , the person is feeling tired)

Diagnosis = fatigue plus 4 associated symptoms

- Exclusion of other causes of fatigue

Treatment

- Improving rhythm of sleep
- Physical activity
- Psychotherapy