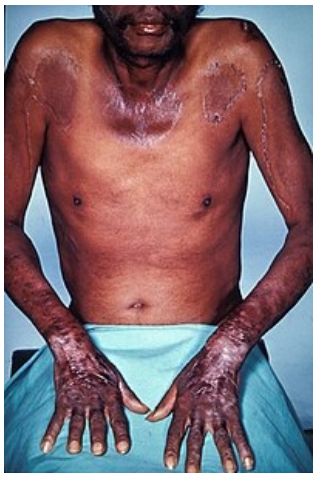
Pellagra

Pellagra is a disease caused by the deficiency of **niacin** (also known as nicotinic acid or vitamin B_3). **Niacin** is involved in glycolysis, fatty acid metabolism, tissue respiration, and detoxication processes. It is found in most plant and animal food (e.g., meat, fish, cereals, and legumes). It can be partially synthesized from **tryptophan.**



Patient with pellagra (skin changes)

Epidemiology

At the present, it occurs mainly in poor developing countries, where **corn** is the main source of sustenance. The nicotinic acid present in maize is difficult for the body to extract and tryptophan is found in a very small amount in maize, so it cannot be used to form niacin,

Clinical symptoms

Clinical signs result from disorders of niacin metabolism and manifest mainly on the skin and gastrointestinal tract.

- **Early signs** of deficiency are indigestion, muscle weakness, and skin changes.
- In **fully manifested pellagra**, typically there is **d**ermatitis (symmetrical lesions in particular parts of the body exposed to light), gastrointestinal problems (**d**iarrhea alternating with constipation), and mental disorders (can manifest as **d**ementia or a state of confusion).
- For this reason, pellagra is called the **3D** disease (in Anglo-Saxon literature "4 D's disease'- the last "D" is death)

References

Related articles

- Vitamin B3
- Diseases caused by nutrient deficiencies
- Diseases caused by excess nutrients

Literature

- BENCKO, Vladimír. *Hygiena : Učební texty k seminářům s praktickým cvičením.* 2. edition. Praha : Karolinum, 1998. ISBN 80-7184-551-5.
- ŠERÝ, Vladimír – BÁLINT, Ondrej. *Tropická a cestovní medicína.* 1. edition. Praha : Medon, 1998. 569 pp. ISBN 80-902122-4-7.