STEDMAN'S Medical Dictionary

27th Edition

Illustrated in Color

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Database design by Lexi-Comp Inc., Hudson, OH
Printed in the United States of America by World Color, Inc.

Library of Congress Cataloging-in-Publication Data

Stedman, Thomas Lathrop, 1853-1938.
Stedman's medical dictionary.—27th ed.
p.; cm.
ISBN 0-683-40007-X (regular)—ISBN 0-683-40008-8 (deluxe)
1. Medicine—Dictionaries. I. Title: Medical dictionary. II. Title.
[DNLM: 1. Medicine—Dictionary—English. W 13 S812m 1999]
R121 .S8 1999
610'.3—dc21

99-056094

00 01 02 03 04 05
1 2 3 4 5

widespread in temperate areas, in contrast to the more tropical distribution of the New World hookworm, *Necator americanus*, that is the only hookworm found in the U.S.

A. tubaeforme, a nematode species found in the cat; cutaneous larva migrans seen in humans.

an·cy·lo·sto·mat·ic (an′si-lō-stō-mat′ik, an′ki-). Referring to hookworms of the genus *Ancylostoma*.

an·cy·lo·sto·mi·a·sis (an′si-lō-stō-mī′ă-sis, an′ki-). Hookworm disease caused by *Ancylostoma duodenale* and characterized by eosinophilia, anemia, emaciation, dyspepsia, and, in children with severe chronic infections, swelling of the abdomen with mental and physical maldevelopment. SYN ankylostomiasis, intertropical hyphemia, tropical hyphemia, miner's disease (1), tunnel disease, uncinariasis.

cutaneous a., SYN cutaneous *larva migrans*.

an·cy·roid (an′si-royd). Shaped like the fluke of an anchor; denoting the cornua of the lateral ventricles of the brain and the coracoid process of the scapula. SYN ankyroid. [G. *ankyra*, anchor, + *eidos*, resemblance]

Andernach, Johann W. (Guenther von Andernach), German physician, 1505–1574. SEE A. *ossicles*, under *ossicle*.

Anders, James Meschter, U.S. physician, 1854–1936. SEE A. *disease*.

Andersch, Carolus Samuel, German anatomist, 1732–1777. SEE A. *ganglion*, *nerve*.

Andersen, Dorothy Hansine, U.S. pediatrician, 1901–1963. SEE A. *disease*.

Anderson, Evelyn, U.S. physician, *1899. SEE A.-Collip *test*.

Anderson, Roger, U.S. surgeon, 1891–1971. SEE A. *splint;* Roger A. pin fixation *appliance*.

Anderson, James C., British urologist, *1899.

an·di·ra (an-dī′ră). The bark of *Andira inermis*, a leguminous tree of tropical America, used as an emetic, purgative, and anthelmintic. SYN cabbage tree, worm bark. [West Indian native name]

Andral, Gabriel, French physician, 1797–1876. SEE A. *decubitus*.

an·dre·nos·ter·one (an-drĕ-nos′ter-ōn). SYN adrenosterone.

an·dri·at·rics, an·dri·a·try (an-dri-at′riks, -drī′ă-trē). Medical science relating to diseases of male genital organs and of men in general. [G. *anēr*, a man, + *iatreia*, medical treatment]

andro-. Masculine. [G. *anēr*, *andros*, a male human being]

an·dro·gen (an′drō-jen). Generic term for an agent, usually a hormone (e.g., androsterone, testosterone), that stimulates activity of the accessory male sex organs, encourages development of male sex characteristics, or prevents changes in the latter that follow castration; natural a.'s are steroids, derivatives of androstane. SYN testoid (2).

adrenal a., any androgenic hormone of adrenocortical origin; e.g., dehydroepiandrosterone (and its sulfate), androstenedione, 11β-hydroxyandrostenedione.

an·dro·gen·e·sis (an-drō-jen′ĕ-sis). Development in the presence of paternal chromosomes only. [andro- + G. *genesis*, production]

an·dro·gen·ic (an-drō-jen′ik). Relating to an androgen; having a masculinizing effect. SYN testoid (1).

an·drog·e·nous (an-droj′ĕ-nŭs). Giving birth to males.

an·drog·y·nism (an-droj′i-nizm). SYN female *pseudohermaphroditism*.

an·drog·y·noid (an-droj′i-noyd). A male resembling a female, or possessing female features. [andro- + G. *gynē*, woman, + *eidos*, resemblance]

an·drog·y·nous (an-droj′i-nŭs). Pertaining to androgyny.

an·drog·y·ny (an-droj′i-nē). **1.** SYN female *pseudohermaphroditism*. **2.** Having both masculine and feminine characteristics, as in attitudes and behaviors that contain features of stereotyped, culturally sanctioned sexual roles of both male and female. [andro- + G. *gynē*, woman]

an·droid (an′droyd). SYN andromorphous. [andro- + G. *eidos*, resemblance]

an·drol·o·gy (an-drol′ō-jē). The branch of medicine concerned with diseases peculiar to the male sex, particularly infertility and sexual dysfunction. [andro- + G. *logos*, treatise]

an·drom·e·do·tox·in (an-drom′ĕ-dō-tok′sin). A strongly emetic active principle obtained from several species of *Andromeda* and *Rhododendron* (family Ericaceae); it is a cardiac poison, first stimulating and then paralyzing the vagus; it also paralyzes the motor nerve ends in striated muscle.

an·dro·mor·phous (an-drō-mōr′fŭs). Having a male form or habitus. SYN android. [andro- + G. *morphē*, form]

an·drop·a·thy (an-drop′ă-thē). Any disease, such as prostatitis, peculiar to the male sex. [andro- + G. *pathos*, suffering]

andropause. A postulated decrease in function of male gonads with increasing age, analogous to menopause.

an·dro·pho·bia (an-drō-fō′bē-ă). Morbid fear of men, or of the male sex. [andro- + G. *phobos*, fear]

an·dro·stane (an′drō-stān). The parent hydrocarbon of the androgenic steroids. For structure, see steroids.

an·dro·stane·di·ol (an-drō-stān′dī-ol). 5α-Androstane-3β,17β-diol; a steroid metabolite, of which 5β isomers are also known.

an·dro·stane·di·one (an-drō-stān′dī-ōn). 5α-Androstane-3,17-dione; a steroid metabolite, of which the 5β isomer is also known. It is a precursor of both testosterone and estrone. It is secreted by the adrenals.

an·dro·stene (an′drō-stēn). Androstane with an unsaturated (i.e., –CH=CH–) bond in the molecule.

an·dro·stene·di·ol (an-drō-stēn′dī-ol). 5-Androsten-3β,17β-diol; a steroid metabolite differing from androstanediol by possessing a double bond between C-5 and C-6.

an·dro·stene·di·one (an-drō-stēn′dī-ōn). 4-Androstene-3,17-dione; androstanedione with a double bond between C-4 and C-5; an androgenic steroid of weaker biological potency than testosterone; secreted by the testis, ovary, and adrenal cortex.

androstenol. A substance that is a postulated pheromone; it is found in male sweat where it is oxidized to androstenone. In tests, women like the dry musky smell of androstenol, but find androstenone to have a chemical, urinelike odor that is unpleasant; however, ovulating women react neutrally.

an·dro·sten·o·lone (an-drō-stēn-ō-lōn). SYN dehydro-3-epiandrosterone.

an·dros·ter·one (an-dros′ter-ōn). *cis*-Androsterone; 3α-hydroxy-5α-androstan-17-one; a steroid metabolite, found in male urine, having weak androgenic potency. Formed in testes from progesterone.

an·ec·dot·al (ă-nek′dō-tal). Report of clinical experiences based in individual cases, rather than an organized investigation with appropriate controls, etc. [G. *anekdota*, unpublished items, fr. *an-* priv + *ekidomi*, to publish]

an·e·cho·ic (an-ĕ-kō′ik). The property of being echo-free or appearing without echoes on a sonographic image; a cyst filled with clear fluid appears anechoic. SEE transonic. SYN echo-free. [G. *an-* priv. + echo + ic]

Anel, Dominique, French surgeon, 1679–1725. SEE A. *method*.

an·e·lec·tro·ton·ic (an-ē-lek-trō-ton′ik). Relating to anelectrotonus.

an·e·lec·trot·o·nus (an′ē-lek-trot′ō-nŭs). Changes in excitability and conductivity in a nerve or muscle cell in the neighborhood of the anode during the passage of a constant electric current. [anelectrode + G. *tonos*, tension]

ANEMIA

ane·mia (ă-nē′mē-ă). Any condition in which the number of red blood cells per mm^3, the amount of hemoglobin in 100 ml of blood, and/or the volume of packed red blood cells per 100 ml of blood are less than normal; clinically, generally pertaining to the concentration of oxygen-transporting material in a designated volume of blood, in contrast to total quantities as in oligocythemia, oligochromemia, and oligemia. A. is frequently manifested by pallor of the skin and mucous membranes, shortness of breath,

palpitations of the heart, soft systolic murmurs, lethargy, and fatigability. [G. *anaimia,* fr. *an-* priv. + *haima,* blood]

achlorhydric a., a form of chronic hypochromic microcytic a. associated with achlorhydria or achylia gastrica; observed most frequently in women in the third to fifth decades. SYN Faber a., Faber syndrome.

achrestic a., a form of chronic progressive macrocytic a. that can be fatal in which the changes in bone marrow and circulating blood closely resemble those of pernicious a., but in which there is only transient or no response to therapy with vitamin B_{12}; glossitis, gastrointestinal disturbances, central nervous system disease, and pyrexia are not observed, and there is only little bleeding or hemolysis. [G. *a-* priv. + *chrēsis,* a using]

acquired hemolytic a., nonhereditary acute or chronic a. associated with or caused by extracorpuscular factors, e.g., certain infectious agents, chemicals (including autoantibodies or therapeutic agents), burns, toxic materials from higher plant and animal forms (including snake venoms).

Addison a., SYN pernicious a.

addisonian a., SYN pernicious a.

angiopathic hemolytic a., a rare postpartum a. of unknown etiology with uremia and nephrosclerosis; may be a rare complication following use of contraceptive steroids.

aplastic a., a. characterized by a greatly decreased formation of erythrocytes and hemoglobin, usually associated with pronounced granulocytopenia and thrombocytopenia, as a result of hypoplastic or aplastic bone marrow. SYN a. gravis, Ehrlich a.

asiderotic a., SYN chlorosis.

autoimmune hemolytic a., (1) cold-antibody type, caused by hemagglutinating antibody (usually IgM class) maximally active at 4°C; and resulting from severe hemolysis in cold hemagglutinin disease; **(2)** warm-antibody type (which is the most common), acquired hemolytic a. due to serum autoantibodies (usually IgG class), maximally active at 37°C, that react with the patient's red blood cells; it varies in severity, occurs in all age groups of both sexes, and may be idiopathic or secondary to neoplastic, autoimmune, or other disease.

Bartonella a., a. occurring in infection with *Bartonella bacilliformis* and characterized by an acute febrile a. of rapid onset and high mortality. Occurs in central Andean mountains of northern South America; vector is phlebotomine sandfly, *Lutzomyia.*

Belgian Congo a., SYN kasai.

Biermer a., SYN pernicious a.

brickmaker's a., a. associated with hookworm disease.

chlorotic a., SYN chlorosis.

congenital a., SYN *erythroblastosis* fetalis.

congenital aplastic a., SYN Fanconi a.

congenital dyserythropoietic a., a group of a.'s characterized by ineffective erythropoiesis, bone marrow erythroblastic multinuclearity, and secondary hemochromatosis. Three types are described: **type I** [MIM224120], macrocytic, megaloblastic a. with erythroblastic internuclear chromatin bridges; **type II,** [MIM*224100], normoblastic a. with multinucleated erythroblasts; **type III,** macrocytic a. with erythroblastic multinuclearity and gigantoblasts [MIM*105600]. Both types I and II are autosomal recessively inherited, type III is of autosomal dominant inheritance.

congenital hemolytic a., accelerated destruction of red blood cells due to an inherited defect, such as in the membrane in hereditary spherocytosis.

congenital hypoplastic a. [MIM*205900], a macrocytic a. resulting from congenital hypoplasia of the bone marrow, which is grossly deficient in erythroid precursors while other elements are normal; a. is progressive and severe, but leukocyte and platelet counts are normal or slightly reduced; survival of transfused erythrocytes is normal; minor congenital anomalies are found in some patients. Both autosomal dominant and recessive forms have been described, caused by mutation in the gene encoding ribosomal protein S19 (RBS19) on chromosomal 19q. SYN congenital nonregenerative a., Diamond-Blackfan a., Diamond-Blackfan syndrome, erythrogenesis imperfecta, familial hypoplastic a., pure red cell a.

congenital nonregenerative a., SYN congenital hypoplastic a.

Cooley a., SYN *thalassemia* major.

cow milk a., a. occurring in infants fed cow milk without iron supplementation, attributed to digestive tract allergic reaction leading to blood loss and hence iron deficiency.

deficiency a., SYN nutritional a.

Diamond-Blackfan a., SYN congenital hypoplastic a.

dilution a., SYN hydremia.

dimorphic a., a. in which two distinct forms of red cells are circulating.

diphyllobothrium a., a rare form of macrocytic a. associated with *Diphyllobothrium latum* infection, especially in Finland. SYN fish tapeworm a.

drepanocytic a., SYN sickle cell a.

dyshemopoietic a., any a. resulting from defective function of the bone marrow.

Ehrlich a., SYN aplastic a.

elliptocytary a. (ē-lip′tō-sī′tar-ē), a. with elliptocytosis; a heterogeneous group of inherited a.'s having in common elliptical red cells on blood smear. The defect may reside in dysfunction or deficiency of proteins of the red cell membrane skeleton. SYN elliptocytotic a.

elliptocytotic a. (ē-lip′tō-sī-tot′ik), SYN elliptocytary a.

erythroblastic a., a. characterized by the presence of large numbers of nucleated red cells (normoblasts and erythroblasts) in the peripheral blood. Seen in newborns with hemolytic a., due to isoimmunization, such as that caused by Rh or ABO incompatibility. SEE ALSO *erythroblastosis* fetalis. SYN erythronormoblastic a.

erythronormoblastic a. (ĕ-rith′rō-nōr′mō-blast- ik), SYN erythroblastic a.

essential a., obsolete term for pernicious a.; also used formerly for any type of a. of unknown mechanism.

Faber a., SYN achlorhydric a.

false a., SYN pseudoanemia.

familial hypoplastic a., SYN congenital hypoplastic a.

familial microcytic a. [MIM*206200], a rare type of autosomal recessive hypochromic microcytic a. associated with a defect of iron metabolism characterized by high serum iron, hepatic iron deposits, and absence of stainable bone marrow iron stores.

familial pyridoxine-responsive a. [MIM*206000], a rare autosomal recessive hereditary hypochromic a.; responsive to pyridoxine.

Fanconi a., a type of idiopathic refractory a. characterized by pancytopenia, hypoplasia of the bone marrow, and congenital anomalies, occurring in members of the same family (an autosomal recessive trait in at least five nonallelic types [MIM*227650, 227660, 227645, 227646, 600901]); the a. is normocytic or slightly macrocytic, macrocytes and target cells may be found in the circulating blood, and the leukopenia usually is due to neutropenia. Congenital anomalies include short stature; microcephaly; hypogenitalism; strabismus; anomalies of the thumbs, radii, and kidneys and urinary tract; mental retardation; and microphthalmia. SYN congenital aplastic a., congenital pancytopenia, Fanconi pancytopenia, Fanconi syndrome (1).

fish tapeworm a., SYN diphyllobothrium a.

folic acid deficiency a., a. due to deficiency of folic acid, characterized by large-sized red blood cells (macrocytosis) and presence of large nuclei in erythroid precursor cells (megaloblasts) in the bone marrow.

goat's milk a., nutritional a. in infants maintained chiefly with goat's milk, which is relatively poor in iron content.

a. gra′vis, SYN aplastic a.

ground itch a., a. associated with hookworm disease.

Heinz body a., SEE unstable hemoglobin hemolytic a.

hemolytic a., any a. resulting from an increased rate of erythrocyte destruction.

hemolytic a. of newborn, SYN *erythroblastosis* fetalis.

hemorrhagic a., a. resulting directly from loss of blood.

hookworm a., a. associated with heavy infestation by *Ancylostoma duodenale* or *Necator americanus.*

hypochromic a., a. characterized by a decrease in the ratio of the weight of hemoglobin to the volume of the erythrocyte, i.e., the mean corpuscular hemoglobin concentration is less than normal; the individual cells contain less hemoglobin than they do under optimal conditions and stain more faintly.

hypochromic microcytic a., a. due to iron deficiency or thalassemia, and characterized by lower than normal mean corpuscular volume, mean corpuscular hemoglobin, and mean corpuscular hemoglobin concentration.

hypoferric a., SYN iron deficiency a.

hypoplastic a., progressive nonregenerative a. resulting from greatly depressed, inadequately functioning bone marrow; as the process persists, aplastic a. may occur.

infectious a., a. developing as a complication of infection; probably results from depressed formation and short survival of erythrocytes and abnormal iron metabolism.

iron deficiency a., hypochromic microcytic a. characterized by low serum iron, increased serum iron-binding capacity, decreased serum ferritin, and decreased marrow iron stores. SYN hypoferric a.

isochromic a., SYN normochromic a.

lead a., a. associated with poisoning from lead; thought to result from a defect in synthesis of hemoglobin based on the failure of iron being combined in the porphyrin ring.

leukoerythroblastic a., SYN leukoerythroblastosis.

local a., a. resulting from a decreased supply of blood to a part, as in the occlusion of a vessel.

macrocytic a., any a. in which the average size of circulating erythrocytes is greater than normal, i.e., the mean corpuscular volume is 94 cu μm^3 or more (normal range, 82–92 cu μm^3), including such syndromes as pernicious a., sprue, celiac disease, macrocytic a. of pregnancy, a. of diphyllobothriasis, and others. SYN megalocytic a.

macrocytic achylic a., SYN pernicious a.

macrocytic a. of pregnancy, an a. occurring in pregnancy, related to folate deficiency and characterized by a low level of hemoglobin and a reduced number of erythrocytes, which are larger than normal (macrocytes).

macrocytic a. tropical, the macrocytic, megaloblastic a. of tropical sprue.

malignant a., SYN pernicious a.

Marchiafava-Micheli a., SYN paroxysmal nocturnal *hemoglobinuria*.

megaloblastic a., any a. in which there is a predominant number of megaloblastic erythroblasts, and relatively few normoblasts, among the hyperplastic erythroid cells in the bone marrow (as in pernicious a.).

megalocytic a., SYN macrocytic a.

metaplastic a., pernicious a. in which the various formed elements in the blood are changed, e.g., multisegmented, unusually large neutrophils (macropolycytes), immature myeloid cells, bizarre platelets.

microangiopathic hemolytic a., hemolysis due to intravascular fragmentation of red blood cells; may be due to microcirculatory lesions or the insertion of cardiac or intravascular prosthetic devices.

microcytic a., any a. in which the average size of circulating erythrocytes is smaller than normal, i.e., the mean corpuscular volume is 80 cu μm or less (normal range, 82–92 cu μm).

microdrepanocytic a., SYN sickle cell-thalassemia *disease*.

milk a., a type of hypochromic microcytic a., resulting from deficiency of iron, occurring in infants maintained on a milk diet for too long a time.

mountain a., term sometimes used for mountain sickness.

myelophthisic a., myelopathic a., SYN leukoerythroblastosis.

neonatal a., SYN *erythroblastosis* fetalis.

a. neonato'rum, SYN *erythroblastosis* fetalis.

normochromic a., any a. in which the concentration of hemoglobin in the erythrocytes is within the normal range, i.e., the mean corpuscular hemoglobin concentration is from 32 to 36%. SYN isochromic a.

normocytic a., any a. in which the erythrocytes are normal in size, i.e., the mean corpuscular volume ranges from 82 to 92 cu μm.

nutritional a., any a. resulting from a dietary deficiency of materials essential to red blood cell formation, e.g., iron, vitamins (especially folic acid), protein. SYN deficiency a.

nutritional macrocytic a., macrocytic, megaloblastic anemia due to deficiency of either folate or vitamin B12.

osteosclerotic a., a. due to compromise of erythropoiesis due to osteosclerosis.

pernicious a. [MIM*361000], a chronic progressive a. of older adults (occurring more frequently during the fifth and later decades, rarely prior to 30 years of age), due to failure of absorption of vitamin B_{12}, usually resulting from a defect of the stomach accompanied by mucosal atrophy and associated with lack of secretion of "intrinsic" factor; characterized by numbness and tingling, weakness, and a sore smooth tongue, as well as dyspnea after slight exertion, faintness, pallor of the skin and mucous membranes, anorexia, diarrhea, loss of weight, and fever; laboratory studies usually reveal greatly decreased red blood cell counts, low levels of hemoglobin, numerous characteristically oval shaped macrocytic erythrocytes (color index greater than normal, but not truly hyperchromic), and hypo- or achlorhydria, in association with a predominant number of megaloblasts and relatively few normoblasts in the bone marrow; the leukocyte count in peripheral blood may be less than normal, with relative lymphocytosis and hypersegmented neutrophils; a low level of vitamin B_{12} is found in peripheral red blood cells; administration of vitamin B_{12} results in a characteristic reticulocyte response, relief from symptoms, and an increase in erythrocytes, provided that pernicious a. is not complicated by another disease; the condition is not actually "pernicious," as it was prior to the availability of therapy with vitamin B_{12}. At least two autosomal recessive forms are known. In one there is a defect of intrinsic factor [MIM*26100] and in the other a defective absorption of vitamin B_{12} from the intestine [MIM*261100]. SYN Addison a., Addison-Biermer disease, addisonian a., Biermer a., Biermer disease, macrocytic achylic a., malignant a.

physiologic a., an obsolete term for apparent a. caused by increased fluid volume of the blood (overhydration).

polar a., a form of a. sometimes observed in natives of temperate climates when they migrate to the Arctic or Antarctic regions.

posthemorrhagic a., an acute a. caused by fairly sudden and rapid loss of blood, as by traumatic laceration of a relatively large vessel, erosion of an artery in a duodenal ulcer, or hemorrhage in an ectopic pregnancy. SYN traumatic a.

primary erythroblastic a., SYN *thalassemia* major.

primary refractory a., any of a group of anemic conditions in which there is persistent, frequently advanced a. that is not successfully treated by any means except blood transfusions, and that is not associated with another primary disease.

pure red cell a., SYN congenital hypoplastic a.

radiation a., hypoplastic a. sometimes occurring after high-level acute or low-level chronic exposure to ionizing radiation.

refractory a., progressive a. unresponsive to therapy other than transfusion. SEE primary refractory a., secondary refractory a.

scorbutic a., a. occurring in patients with scurvy, usually due to coincident nutritional deficiency; e.g., the "megaloblastic a. of scurvy" is due to concomitant folic acid deficiency.

secondary refractory a., any persistent a. that is successfully treated only by blood transfusions, and that is associated with another condition.

sickle cell a. [MIM*141900], an autosomal recessive a. characterized by crescent- or sickle-shaped erythrocytes and accelerated hemolysis, due to substitution of a single amino acid (valine for glutamic acid) in the sixth position of the β-chain of hemoglobin the gene of which is on chromosome 11; affected homozygotes have 85–95% Hb S and severe anemia, while heterozygotes (said to have sickle cell trait) have 40–45% Hb S, the rest being normal Hb A; low oxygen tension causes polymerization of the abnormal β-chains, thus distorting the shape of the red blood cells to the sickle form. Homozygotes develop "crisis" episodes of severe pain due to microvascular occlusions, bone infarcts, leg ulcers,

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