

DE RE MEDICINA



EDITIO • SECUNDA

ELI LILLY AND COMPANY

Indianapolis, Indiana, U. S. A.

TO
THE MEDICAL PROFESSION

In offering this publication to the medical profession, Eli Lilly and Company emulates the purpose and title of the original classic work of Celsus, DE RE MEDICINA (the first Treatise for Medical Reference), published in Florence in 1478. This book is a presentation of therapeutic suggestions in common diseases.





Engraved on wood by P. Grassby

CELSUS, *Aurelius Cornelius*

30 B.C. • A.D. 38

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Common Diseases

Suggested Treatment

ABORTION

Abortion is the termination of pregnancy before the fetus is viable. Vaginal bleeding and lower abdominal pain are the outstanding symptoms.

TREATMENT

Complete bed rest and the administration of sedatives are of first importance. **Morphine sulfate**, 1/4 grain (0.016 Gm.) given hypodermically every four hours, or barbiturates such as 'Amytal' or 'Seconal,' 1 1/2 to 3 grains (0.1 to 0.2 Gm.) by mouth, may be indicated. Enemas and cathartics are interdicted.

Threatened abortion can sometimes be prevented by the above measures plus the intramuscular injection of **Progesterin in Oil**, 5 to 15 mg. daily, and the ingestion of **Wheat Germ Oil** (vitamin E), 1/2 to 1 1/2 drams (2 to 6 cc.) daily. Early treatment is essential.

Inevitable abortion results from death of the fetus, as determined by a negative Aschheim-Zondek or Friedman test or by history of spontaneous rupture of the membranes and escape of amniotic fluid. Conservative measures are of no avail, and treatment should be as for incomplete abortion.

In incomplete abortion, an attempt should be made to induce passage of retained tissue as follows: ice bag to lower abdomen; **quinine sulfate** not to exceed 15 grains (0.97 Gm.) by mouth; **Pituitary Extract for Obstetrical Use**, 8 minims (0.5 cc.) hypodermically every six hours, or 'Ergotrate' by mouth or 'Ergotrate H' by injection, 1/160 grain (0.0004 Gm.) every four hours, until uterine emptying is complete and bleeding controlled; 1,000 cc. of 5 or 10 percent **dextrose** in physiological solution of sodium chloride in emergency for shock, hemorrhage, or reduced fluid intake; blood transfusion of 500 cc. or more, or **Acacia with Sodium Chloride**, 500 to 1,000 cc. of solution diluted to contain 6 Gm. acacia and 0.9 Gm. sodium chloride per 100 cc., for blood loss. If the patient has fever **sulfanilamide**, 15 grains (0.97 Gm.), are given every four hours the first

day, 10 grains (0.65 Gm.) every four hours the second and third days, and 40 grains (2.6 Gm.) on each successive day until the temperature has been normal for several days. If possible the dosage of sulfanilamide should be regulated to maintain a concentration of 10 mg. per 100 cc. blood. Surgery is resorted to after five days of normal temperature if the above measures are unsuccessful or at once if hemorrhage is severe and prolonged, or if a dilated cervix filled with decidua blocks drainage.

Missed abortion is the condition present when abortion has not occurred spontaneously within eight weeks of the death of the fetus in utero. Evacuation of the uterus is indicated as soon as diagnosis is certain. **Quinine** and **pituitary extract** or 'Ergotrate' are used as in incomplete abortion, but since the myometrium is usually insensitive (otherwise abortion would have occurred spontaneously), it may be sensitized with **Estrone in Oil**, 20,000 International units daily by injection, for several days before the other drugs are administered.

Habitual abortion is said to occur if abortion takes place spontaneously without apparent cause in at least two successive pregnancies. Habitual abortion is frequently due to endocrine disturbances, such as mild hypothyroidism or placental delay in taking over from the corpus luteum the function of progesterin production. **Thyroid** in subtoxic doses is given where hypothyroidism is suspected. **Progesterin** is administered in doses of 1 mg. once or twice weekly, beginning well before the danger period and continuing at least into the fifth month of gestation and possibly until the fetus is viable (seventh month). **Wheat Germ Oil** (vitamin E) may be given, 1/2 to 1 1/2 drams (2 to 6 cc.) daily.

SUPPORTIVE MEASURES

For the relief of pain, 'A.S.A.' or 'A.S.A. Compound' may be given, 5 to 10 grains (0.325 to 0.65 Gm.) every four hours. For blood regeneration 'Enseals' **Ferrous Sulfate**, 20 grains

(1.3 Gm.) three times daily, or 'Lextron' or 'Lextron Ferrous,' 9 to 12 pulvules daily, may be used. 'Strepto-Lysate' or 'Colo-Lysate' has been suggested for instillation into the uterus in septic abortion.

ABSCESS

The local signs of abscess are heat, redness, swelling, pain, and tenderness. Constitutional symptoms of malaise and fever may or may not be present and leukocytosis is usually found.

TREATMENT

Treatment should be symptomatic and supportive until localization has been accomplished. Incision and drainage then may be effected. If the causative organism can be determined vaccines may be of considerable benefit: **Staphylococcus 'U B A,' Streptococcus 'U B A,'** or **Staphylococcus-Streptococcus 'U B A'** in doses of 0.1 to 0.5 cc, or more subcutaneously every one to three days; **Streptococcus-Staphylococcus Vaccine**, in an initial dose of 0.1 cc. subcutaneously, increased to 1 cc. as indicated at two-day to five-day intervals; or **Staphylococcus or Streptococcus Vaccine** individually in the same dosage. Locally **Tincture 'Merthiolate'** 1:1,000 may be used as an antiseptic on the surrounding skin and **Solution 'Merthiolate'** may be utilized for irrigation or wet dressings in a concentration of 1:5,000 to 1:1,000. '**Staphylo-Jel**' or '**Strepto-Jel**' applied topically or '**Staphylo-Lysate**' injected into the area may be of considerable benefit.

SUPPORTIVE MEASURES

For the relief of pain and general malaise '**Amytal**' and **Acetylsalicylic Acid**, '**Amytal**' and **Aminopyrine**, or '**A.S.A. Compound**' may be sufficient, although **morphine sulfate** may be required if pain is severe.

ACIDOSIS

Acidosis per se is a symptom of some underlying disorder of metabolism. The amount of dextrose undergoing oxidation in the body bears a definite relationship to the quantity of acetoacetic (diacetic) acid which can be oxidized. If the supply of carbohydrate is deficient as in starvation, or when metabolism is defective as in diabetes mellitus, an excessive production of acetone bodies occurs. Prolonged ketosis may lead to acidosis because neutralization of acetoacetic and beta-hydroxybutyric acids may deplete the buffer substances of the blood if they are not replaced by alkali.

The chief causes of acidosis are: (1) diabetes mellitus; (2) deficiencies in availability of carbohydrate, as in starvation and certain gastro-

intestinal disorders; (3) excessive metabolism of proteins and fats as found at times in severe fevers or with the ketogenic diet; (4) chloroform or ether anesthesia. Diagnosis is made by finding positive tests for acetone and acetoacetic acid in the urine, and by determining the carbon-dioxide-combining power of the blood.

TREATMENT

Specific measures must be directed toward the underlying cause. Carbohydrate may be supplied with **dextrose** intravenously in 5 to 10 percent solution, administered slowly. Sufficient amounts of fluid must be given to maintain the urinary output at approximately 1,500 cc. each twenty-four hours. If signs of dehydration are present from 3,000 to 6,000 cc. of fluid may be needed in the first twenty-four hours.

Sodium lactate solution is antiketogenic and is indicated in any type of acidosis where prompt relief is necessary. In severely dehydrated patients one-third to one-half the total dose (20 to 30 cc. per kilogram of body weight of the one-sixth molar solution) should be given intravenously and the remainder subcutaneously or intraperitoneally. If the carbon-dioxide content of the plasma is known, the dose in cubic centimeters of molar sodium lactate equals (60 minus the observed plasma CO_2) \times (0.3 body weight in Kg.). If unknown, a safe dose is 10 cc. per kilogram of body weight (60 cc. of the diluted isotonic solution). *The molar solution must be diluted with five volumes of sterile distilled water before injecting.* An average oral dose for an infant is 5 to 10 cc. of the molar solution diluted in milk or water, four or five times in twenty-four hours.

Lactate-Ringer's Solution (physiological buffer salts solution: Hartmann's "Combined" Solution) may be employed following restoration of the carbon-dioxide-combining power of the blood to normal value. Suggested doses are: for children up to one year of age, 250 cc.; from one to eight years, 500 cc.; and over eight years of age, 1,000 cc. The value of supplying **sodium chloride** to patients who have lost appreciable amounts of secretions through vomiting or diarrhea, is well established.

Insulin, one unit for each two to three or more grams of dextrose, is sometimes recommended. Under most conditions, in the absence of diabetes, the body has sufficient insulin to metabolize the usual amounts of dextrose given intravenously.

SUPPORTIVE MEASURES

Gastric lavage with warm **sodium bicarbonate solution** is sometimes indicated. The patient should be kept warm. **Epinephrine** 1:1,000 in doses of 0.3 to 1 cc. may be given in collapse, or **ephedrine sulfate**, 3/8 to 3/4

grain (0.025 to 0.05 Gm.), if blood pressure is falling.

ACNE

Under this heading are included *Acne Rosacea* and *Acne Vulgaris*.

ACNE ROSACEA

This type of acne occurs exclusively on the face and is characterized by tissue hypertrophy (especially of the nose and contiguous areas) and telangiectasia. It is often associated with acne-form lesions.

TREATMENT

There is no specific treatment. Roentgen therapy is valuable and the use of ultraviolet light will occasionally be beneficial.

Exposure to wind and cold should be avoided. Alcohol, hot liquids (soup, tea, coffee, etc.), highly seasoned foods, and an excessive intake of carbohydrate are detrimental. Factors causing allergy and constipation, and dysfunction of the reproductive organs in women should be corrected. Foci of infection require attention.

Ointment Sulfur, U.S.P., and **Ointment Resorcinol Compound, N.F.**, diluted to 2 percent with an ointment base, a sulfur and camphor lotion, and **Ointment Zinc Oxide, U.S.P.**, may be applied topically, and sometimes are quite valuable.

ACNE VULGARIS

Acne, a chronic inflammatory disease of the skin, chiefly involves the pilosebaceous structures which are functionally overactive. The acne lesions are papular at first, becoming nodular and pustular, and often are associated with comedones, follicular hyperkeratosis, and oily seborrhea. The face, interscapular or sternal regions, and back are most often involved.

TREATMENT

Therapy is directed toward the general care of the patient and local treatment of the lesions. Scrupulous cleanliness of the skin, avoidance of cosmetics, and regulation of habits of sleep, exercise, and elimination should be practiced. Fat and carbohydrate intake should be reduced. Confectioneries, especially chocolate, pastries, and highly seasoned or fried foods, should be avoided. Correction of systemic disorders and removal of foci of infection are important.

Roentgen therapy expertly applied may be useful, and while relapse frequently occurs, repeated treatment will ultimately benefit 80 percent of cases. **Tincture Green Soap, U.S.P.**, is recommended for cleansing the skin. **Ointment Sulfur, U.S.P.**, and **Ointment Resorcinol Compound, N.F.**, diluted to 2 percent with an ointment base and topically ap-

plied, often will be helpful. An initial subcutaneous or intracutaneous dose of 0.01 to 0.1 cc. of **Acne Mixed 'U B A'** gradually increased at intervals of two or three days may be helpful or **Acne Mixed Vaccine** may be utilized, 0.1 cc. as an initial subcutaneous dose, gradually increased at weekly intervals as indicated by the patient's tolerance.

Parathyroid Extract, 0.5 cc. (50 units) injected subcutaneously on alternate days, may be used in deep-seated, extreme cases (acne cachecticorum). Combined therapy with **thyroid** and estrogenic substance (**Estriol** and **Estrone**) may be helpful in cases with premenstrual or menstrual exacerbation of acne.

SUPPORTIVE MEASURES

'**Acidulin**,' 1 or 2 pulvules after meals, may be given for hypochlorhydria. **Milk of magnesia**, 1 or 2 tablespoonfuls, or **Extract Cascara Sagrada, U.S.P.**, in doses of 1 or 2 cc., is recommended as a laxative. '**Lextron**' or '**Lextron Ferrous**,' 3 or 4 pulvules three times daily; '**Melvaron**,' 1 or 2 tablespoonfuls one to three times daily as a dietary supplement; and '**Betalin Compound**,' 3 or 4 pulvules three times daily to improve gastro-intestinal function, may be useful. **Ichthyol**, 3 grains (0.2 Gm.) after meals, or **salol**, 5 grains (0.325 Gm.), are sometimes used. Water should be taken freely. Pustules should be opened and comedones extracted. Subcutaneous injection of boiled **liver extract** has been reported as beneficial.

ACRODYNIA

(Erythredema, Swift's Disease,
Pink Disease)

Acrodynia is a disorder of unknown etiology, characterized by an erythematous eruption, occurring chiefly on the palms of the hands and soles of the feet. This is followed by exfoliation and pigmentation. Paresthesias and rheumatoid pains in the hands and feet occur. Symptoms referable to the respiratory and gastro-intestinal tracts may be noted. The disease is seen in children under six years of age in 99 percent of cases.

TREATMENT

There appears to be no known specific treatment for acrodynia although the daily parenteral use of 6 mg. (2,000 International units) to 30 mg. (10,000 International units) of **thiamin chloride** (synthetic vitamin B₁) has been attended with some success. The oral administration of 2 mg. (666 International units) to 3 mg. (1,000 International units) of B₁ daily also has produced favorable response. To supply vitamin B₁, '**Betalin S**,' ampoules, tablets, or elixir, may be used. **Elixir 'Betalin Complex**,' 1 ounce daily,

will furnish 1,000 International units of vitamin B₁ as well as substantial amounts of other factors of the B complex.

Cold, wet dressings of 1 percent **boric acid**, **Ringer's solution**, or dilute **aluminum subacetate** will afford local relief. **Calamine lotion** may be applied. Local application of **olive oil**, heat, or exposure to infra-red light may relieve pain and itching. Careful attention should be given to the skin lesions to prevent secondary infection. **Zinc stearate** and **boric acid**, '**Borozin**,' and '**Sulfo-Merthiolate**' 1:1,000 **Surgical Powder** may be useful for this purpose.

SUPPORTIVE MEASURES

To supply vitamins A and D, **Liquid 'Hepicolem'**, 10 or more drops daily, may be given. **Gelseals 'Alpha-Deltalin'**, three daily, also will provide adequate amounts of vitamins A and D, and **Gelseals 'Hepicebrin'**, three daily, will furnish vitamins B₁, B₂, and C in addition to vitamins A and D. '**Melvaron**' is a nutritious dietary supplement furnishing 120 calories per ounce from malt extract, with iron and vitamins A, B₁, B₂ complex, and D. The dose is from 1/2 to 2 teaspoonfuls (2 to 8 cc.) one to three times daily. The daily oral administration of 250 Gm. of liver or its equivalent (12 pulvules '**Lextron**' or '**Lextron Ferrous**') has been recommended.

Atropine, 1/1,000 to 1/500 grain (0.0006 to 0.0013 Gm.), repeated as necessary, will aid in controlling excessive perspiration. Sedatives should be used to reduce cutaneous irritation and restlessness. '**Amytal**,' 1/4 to 1/2 grain (0.016 to 0.0325 Gm.), may be used for this purpose. **Solution Iron and Copper** in amounts of 2 to 6 teaspoonfuls daily well diluted with milk will aid in correcting secondary anemia.

The nutrition should be maintained with a high caloric diet, rich in vitamins.

ACTINOMYCOSIS

(Lumpy Jaw)

Actinomycosis, an infection produced by the *Actinomyces bovis* or ray fungus, is characterized by multiple abscesses and the formation of abundant granulation or connective tissue. Discharges contain colonies of the diagnostic yellowish granules. The disease may be cervico-facial, abdominal, or pulmonary in its manifestations.

TREATMENT

Small accessible lesions may be excised, while more extensive suppurative lesions should be drained surgically. The use of x-ray or radium is highly recommended. Iodides should be given in large doses over a long period of time. '**Enseals**' **Potassium Iodide**, 30 to 75 grains (1.95 to 5 Gm.), daily or to tolerance of the patient, are recommended. Oral therapy may be supplemented with intravenous administration of so-

dium iodide in doses of 15 to 60 grains (0.97 to 3.9 Gm.) daily. **Sulfanilamide**, 25 grains (1.6 Gm.) three times daily for three days, followed by 20 grains (1.3 Gm.) three times daily for two additional days, has been reported to be highly effective. Locally 1 percent solution of **copper sulfate** may be used as a wet dressing.

SUPPORTIVE MEASURES

Solution Antiseptic, N.F., may be used as a mouth wash where there is oral involvement. '**A.S.A. Compound**' may be given for the relief of pain. Daily administration of '**Hepicolem Compound**' will insure adequate vitamin intake.

ADDISON'S DISEASE

Addison's disease is due to hypofunction of the suprarenal glands. Hypofunction in a majority of cases is the result of atrophy, aplasia, or tuberculosis of the glands, while syphilis accounts for a small percentage of cases.

The disease is characterized by progressive weakness, pigmentation of the skin and mucous membranes, anorexia, nausea and vomiting, loss of weight, arterial hypotension, vertigo, syncope, and ultimately collapse with dehydration and circulatory failure.

TREATMENT

Cortical hormone of the adrenal gland (Swingle and Pfiffner), 2 to 5 cc. or more daily, usually controls the clinical manifestations. It must be given in adequate amounts for effect. **Sodium chloride** is of unquestionable value. '**Enseals**' **Sodium Chloride**, 15 1/2 grains (1 Gm.), may be used in doses of five to ten or more daily by mouth. During crises, 5 percent **sodium chloride solution** should be given intravenously in quantities of 200 to 300 cc. to maintain the serum sodium close to the normal level of 330 to 340 mg. percent.

SUPPORTIVE MEASURES

The diet should be low in potassium and high in sodium chloride. Low potassium diets are said to require supplemental calcium phosphate, an iron salt, and vitamin B₁ and B₂ concentrates. '**Enseals**' **Ferrous Sulfate**, 5 grains (0.325 Gm.), **Pulvules Ferrous Gluconate** or **Tablets Ferrous Sulfate**, 5 grains (0.325 Gm.), may be utilized. **Pulvules 'Betalin Compound'** are an excellent source of vitamins B₁ and B₂ complex.

AGRANULOCYTOSIS

Variously known as granulocytopenia, malignant neutropenia, agranulocytic angina, granulopenia, pernicious leukopenia, and idiopathic neutropenia, agranulocytosis results from a dis-

turbance in the normal maturation of the white blood cells in the bone marrow. The syndrome is characterized by an acute febrile course, ulcerative lesions, particularly in the oral cavity, and a marked leukopenia with complete or almost complete disappearance of granulocytic cells from the peripheral blood stream. Causative factors appear to be selective toxic depression of the myeloid (white cell) series by various drugs, chemicals, and possibly bacteria. Diagnosis is made by careful blood and differential counts.

TREATMENT

There is no specific therapy. The causative factor, if drug or chemical, should be stopped, and any underlying bacterial involvement treated actively. Transfusions apparently help but must be given frequently since the primary need is granulocytes, and the percentage of granulocytes in whole blood is small. Intramuscular injections of 10-cc. doses **pentnucleotide** three times daily with an increase to 40 or 50 cc. daily in severe cases result in improvement in many patients. Liver extracts parenterally are recommended as supplemental therapy. **Solution Liver Extract 2 U.S.P. units per cc.** in 3-cc. doses, may be given intramuscularly four times daily. Treatment should be continued for two or three weeks after the granulocytes have reached normal levels.

SUPPORTIVE MEASURES

In the therapy of stomatitis care must be exercised not to disturb the patient needlessly. Gentle washing with **Solution Antiseptic, N.F.**, may be comforting. Sedative and analgesic drugs should be used with extreme caution because of possible effect upon bone marrow.

ALCOHOLISM

Alcoholism indicates the condition of the body following the ingestion of relatively large quantities of ethyl alcohol.

ACUTE ALCOHOLISM (Drunkenness)

The effects of acute alcoholism depend primarily on its action on the central nervous system. When sufficient quantities of ethyl alcohol have been ingested to produce noticeable effects on the faculties of the individual, drunkenness is said to exist.

Usually the patient will "sleep off" the intoxication without special treatment. Patients in alcoholic coma, however, require good nursing care and other measures. Gastric lavage should be done at once. The head should be lowered to prevent aspiration of gastric contents. Inhalation of a mixture of 5 to 10 percent carbon dioxide and 95 to 90 percent oxygen may stimulate respiration and hasten recovery. **Caffeine with Sodium Benzoate**, 7 1/2 grains (0.5 Gm.) in-

tramuscularly, may be substituted for oxygen-carbon-dioxide therapy. **Ephedrine sulfate**, 1/2 grain (0.0325 Gm.) intramuscularly every two hours, may hasten awakening. In acute mania, subcutaneous injections of **apomorphine** in doses of 1/10 to 1/8 grain (0.0065 to 0.008 Gm.) are of considerable value. **Efferescent Salts Magnesium Sulfate** may be used following recovery from coma.

CHRONIC ALCOHOLISM

The various psychic and bodily effects produced by the frequent ingestion of moderate amounts of alcohol, or by irregular bouts of drunkenness are collectively designated as chronic alcoholism.

No drug with specific benefits is known, but all treatment must start with complete abstinence from alcohol and attempts to improve the constitutional, personal, and social defects of the individual. Institutional care may be indicated. Certain well-developed syndromes may develop as a result of chronic alcoholism and treatment must be symptomatic.

DELIRIUM TREMENS

The most helpful measures for the treatment of this acute and usually transient psychosis are sedation and the feeding of concentrated foods and vitamins. Large doses of sedatives should be given with caution as there may be a cumulative depression of the central nervous system.

For the relief of cerebral edema 50 to 100 cc. of a 50 percent **dextrose solution** may be given intravenously, or perhaps an even more efficient preparation for this purpose is **sucrose**, 100 cc. of a 50 percent solution intravenously. Spinal drainage of 50 to 75 cc. of fluid may be beneficial if removed slowly.

Caffeine with Sodium Benzoate, 7 1/2 grains (0.5 Gm.) every four hours for six doses, is found useful. **Paraldehyde** in doses of 8 to 15 cc. by mouth or rectum is efficient as a sedative. In milder cases the barbiturates in moderate doses are satisfactory for sedation. **Sodium Amytal**, 3 to 6 grains (0.2 to 0.39 Gm.) repeated in four to six hours, or **'Seconal'** 1 1/2 to 3 grains (0.1 to 0.2 Gm.), usually may be given without fear of respiratory depression.

Fluid intake should be limited to 1,000 cc. for the first twenty-four hours. A high vitamin B diet should be provided. The parenteral use of **'Betalin S'** in a dosage of 1,000 to 2,000 International units is often advocated. **'Hepicoleum Compound'** may be generally helpful in increasing appetite and eliminating nutritional deficiencies.

ALCOHOLIC POLYNEURITIS

This condition is probably due to a vitamin B deficiency rather than to the effects of the al-

cohol. Treatment consists of immediate and absolute withdrawal of alcohol and the administration of large quantities of vitamin B concentrates. 'Betalin S' should be given intravenously or intramuscularly in daily doses of 1,000 to 10,000 units. The parenteral use of vitamin B may be supplemented by the oral use of 'Betalin Compound,' 1 or 2 pulvules three times daily. Smoking should be eliminated and physiotherapy applied to the extremities involved.

ALKALOSIS

Alkalosis is the result of an abnormal increase in the bicarbonates of the blood or an abnormal increase in the blood pH due to loss of carbonic acid. Three principal causes of alkalosis are excessive alkali ingestion, most often accompanying therapy of peptic ulcers, excessive vomiting, and loss of carbon dioxide as the result of hyperventilation and fever. It is also reported that deep x-ray treatment may cause elevation of the plasma pH.

Chief symptoms which aid in the diagnosis of suspected cases are headache, drowsiness, vertigo, anorexia, nausea, vomiting, muscle ache, and mental depression. In severe cases, tetany may supervene with exhibition of Chvostek's and Trousseau's signs.

TREATMENT

When alkalosis is due to excessive ingestion of alkali the therapy should be stopped. In mild cases the oral administration of 'Eneals' Sodium Chloride, 15 1/2 grains (1 Gm.), or Tablets Sodium Chloride, 15 1/2 grains (1 Gm.) three or four times daily, with adequate fluid intake, will suffice. 'Eneals' Ammonium Chloride, 7 1/2 grains (0.5 Gm.), or Tablets Ammonium Chloride, 5 grains (0.325 Gm.), may be substituted for sodium chloride. Tablets Calcium Gluconate, 7 1/2 grains (0.5 Gm.) or 15 1/2 grains (1 Gm.), will often remedy a distressing tetany but in severe cases 'Glucocalcium' intramuscularly or intravenously will give more prompt results. In cases with markedly lowered blood chloride as a result of persistent emesis, intravenous administration of sodium chloride will give rapid benefit.

SUPPORTIVE MEASURES

Very little is necessary in the way of supportive treatment except prevention of recurrence of alkalosis. Therapy in peptic ulcer patients can be carried on with alkalinizing agents which do not result in a disturbance of the acid-base balance. Tablets 'Trisomin' or Pulvules 'Trisomin' can be prescribed on the regular Sippy regimen without danger of alkalosis.

ALOPECIA

Alopecia denotes loss of hair or baldness which may be transient or permanent. There are several types of alopecia which are roughly classified into congenital, premature, and senile subgroups. Alopecia areata is of special significance being a disorder distinctly different from the above-mentioned. The scalp is usually the site of involvement although other hairy areas may be affected. The etiology is unknown.

TREATMENT

Seborrhea should be treated, and persistent massage of the scalp with mild rubefacients is often beneficial. Exposure to ultraviolet rays has influenced hair growth in some instances. Frequent shampoos are indicated for oily scalps and for this purpose Tincture Green Soap, U.S.P., may be used.

Ointment Resorcinol Compound, N.F., and Ointment Sulfur, U.S.P., applied topically may stimulate the scalp. These should be diluted to 2 percent with an ointment base. Other external applications that have been recommended include mercury, carbolic acid, salicylic acid, capsicum, croton oil, cantharides, tricoresol, colocynth, and tar. Pilocarpine by hypodermic injection, 1/30 to 1/10 grain (0.0022 to 0.0065 Gm.), sometimes will stimulate hair growth.

Anterior Pituitary Extract is of definite value in alopecia areata. The dose is 1 or 2 cc. given parenterally at three-day intervals. In the absence of pilary stimulation, treatment with Anterior Pituitary Extract should be discontinued at the end of twelve weeks. Use of the pressor principle from the posterior pituitary is sometimes beneficial. Periodic use of pituitary extracts is of more value than continuous treatment. Thyroid, 1/4 grain (0.016 Gm.), increased gradually to patient tolerance is useful as a synergist in many cases.

SUPPORTIVE MEASURES

Nutrient tonics have been advocated. 'Melvaron' may be given in 1 to 3 tablespoonful amounts daily. 'Hepicoleum Compound,' 3 or more globules daily, or Gelseals 'Hepicebrin,' 3 or more daily, supply vitamins A, B₁, B₂, C, and D. 'Betalin Compound,' 3 to 9 pulvules daily, and Elixir 'Betalin Complex,' 1 to 2 ounces daily, are potent sources of the various B complex fractions.

AMEBIASIS

Amebic dysentery is a specific infection of the large intestine characterized by discharges of blood and mucus and is produced by the *Endamoeba histolytica*. Secondary lesions occur prin-

cipally in the liver. The disease may be acute and fulminating or may be intermittent in character. The diagnosis is made from the clinical symptoms and the finding of the motile *Endamoeba histolytica* in the stools.

TREATMENT OF ACUTE AMEBIASIS

During the acute stage the patient must remain in bed. The diet should be liquid for the first forty-eight hours, then toast, white rice, soft-cooked eggs, gelatin, ground meat, puréed vegetables, and tea may be allowed. A retention enema of **Carbarson** should be given at bedtime, preceded by 3 grains (0.2 Gm.) "**Sodium Amytal**." Two grams of **Carbarson** are dissolved in 200 cc. of warm 2 percent **sodium bicarbonate solution** and administered slowly by rectum. The enema should be repeated every second day until five such doses are given, and no **Carbarson** should be given orally during this time.

As an alternate treatment, **emetine hydrochloride** in doses of 1 grain (0.065 Gm.) subcutaneously daily for six days and then 1/2 grain (0.0325 Gm.) daily may be given to a total dosage of 10 grains (0.65 Gm.). Intestinal cramping may be relieved by the administration of 1-cc. doses of **tincture opium** or 1/8 to 1/4 grain (0.008 to 0.016 Gm.) **morphine sulfate**. **Atropine sulfate**, 1/150 grain (0.0004 Gm.), may relieve severe colonic spasm.

TREATMENT OF CHRONIC AMEBIASIS

Chronic uncomplicated intestinal amebiasis is the most frequent type seen in this country. **Carbarson** is commonly administered orally in doses of 0.25 Gm. two or three times daily to a total of twenty doses. The course may be repeated after a rest period of ten days. The average total dose should not exceed 75 mg. per kilogram. The diet should be high in protein and low in carbohydrate and roughage.

If amebic hepatitis or liver abscess develops, **emetine hydrochloride** should be given as outlined under "Treatment of Acute Amebic Dysentery." If necessary, the abscess may be aspirated and a 1:2,500 **solution of emetine** injected. In the event of a radical operation for drainage, the 1:2,500 **solution of emetine** may be used for irrigation.

SUPPORTIVE MEASURES

Administration of vitamin B in the form of "**Betalin Compound**," 4 to 6 pulvules daily, is advised. Colonic irrigations with **acriflavine hydrochloride** nightly in a 1:2,500 concentration for a period of five to six nights may relieve associated bacterial infections. In chronic amebiasis hemoglobin regeneration may be accomplished with the administration of 9 to 12

pulvules daily of '**Lextron**,' '**Metycaine**' and '**Merthiolate**' **Jelly** may be used locally to relieve irritation of the rectum and anus.

AMENORRHEA

Amenorrhea is absence of menstruation. Pathological amenorrhea is divided into two clinical types: *primary amenorrhea*, where the patient has never menstruated; and *secondary amenorrhea*, where menses cease after their establishment.

Menstruation is the result of the cyclic interactivity of the anterior lobe of the pituitary gland, the ovaries, and the endometrium. Amenorrhea may be due to anatomic defect or to disturbed function of any of these organs or other parts of the genital tract. Such disturbance may be primary or the result of other endocrine dysfunctions, constitutional disease, malnutrition, or psychic difficulties.

TREATMENT

Coexisting constitutional disorders and psychic disturbances should be treated as indicated. Subtoxic doses of **thyroid** are frequently of value even in the absence of indications of hypothyroidism.

In *secondary amenorrhea* previous menstruation has shown the presence of ovarian tissue capable of function, and an effort should be made to stimulate the tissue by administration of **gonadotropic hormone** prepared from pregnant mares' serum or from anterior pituitary glands. Administration is by injection, usually over a period of two weeks with an equal rest period. Often the last injection of each series is given intravenously to produce ovulation.

In *primary amenorrhea*, also, stimulation of ovarian tissue should be attempted, but in some patients with infantile genital organs and absence of the adult secondary sexual characteristics, gonadotropic therapy usually will be unsuccessful because of the absence of ovarian tissue which is capable of function. In such cases **Estrogen** should be administered, not for the purpose of producing menstruation, but to develop the sex organs and the secondary sexual characteristics. **Estrone in Oil** may be given by intramuscular injection, 5,000 to 10,000 or more International units twice a week for three weeks, followed by a rest period of a week. When satisfactory development has been obtained, the dosage can be materially reduced, and frequently **Estril** by mouth can be substituted for the injection of **Estrone**.

SUPPORTIVE MEASURES

The diet should be adjusted to obviate any possibility of deficiency and attention should be given to general physical condition. Genital disease should be corrected. **Gelseals** '**Hepice-**