BULLETIN

of the

Mahoning County Medical Society

Organized 1872

October 1937

Volume 7 Number 10

ΑΣΚΛΗΠΙΟΣ ΑΣΚΛΗΠΙΟΣ

Reducing Fecal Toxicity

Whenever the bowel loses its normal selectivity and the liver's ability to detoxify is overtaxed, a flood of toxic material enters the system.

Soricin detoxifies at the port of entry—the bowel.

Soricin is not a panacea—it is merely an effective means of decreasing toxic absorption from the enteric tract.

Soricin inhibits putrefaction and abnormal bacterial proteolysis.

The continued use of Soricin aids in desensitizing the patient who has become sensitized to the autolysates of his intestinal flora.

Specifically, Soricin is useful in the treatment and prevention of:

Bacterial hypersensitivity of the intestinal tract
"Irritable colon"
Intestinal toxemia
Allergic diarrhea
Urticaria
Non-ulcerative colitis.

Consequently, Soricin is of value in the relief of many symptoms such as headache, vertigo, anorexia and migraine.

SORICIN DOSAGE FORMS:

Soricin Capsules: Enteric capsules of sodium ricinoleate available in five-grain and ten-grain sizes.

Soricin Tablets: Enteric coated tablets each containing five grains of sodium ricinoleate.

ACTION:

Detoxifies in vivo Desensitizes Inhibits putrefaction Prevents toxic absorption

LITERATURE AND SAMPLE ON REQUEST

JERRY TRAUB, Representing

The Wm. S. Merrell Company

CINCINNATI, U. S. A.

THE MAHONING COUNTY MEDICAL SOCIETY BULLETIN

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PRESIDENT'S PAGE

Leaders, whether individuals or a society, collectively, are replaced because they become contented, self-centered and satisfied.

Societies or individuals cannot stand still—they must move, and that movement should be forward.

The program committee has arranged an abundance of *activity* in regular scientific meetings as well as a special course in Pathology. It is imperative that you keep up your *attendance,* and whenever the society has a business meeting it is vital that you *participate* in its deliberations.

If a society can have *activity, attendance* and *participation* of its members, that society will continue to forge ahead, and maintain its leadership.

PAUL J. FUZY, M. D.

BULLETIN of the . . . . . .
Mahoning County Medical Society
O C T O B E R 1 9 3 7

WHAT THE OHIO STATE MEDICAL ASSOCIATION MEANS TO YOU

The Ohio State Medical Association is a component society of the American Medical Association. The State Association is the central coordinating body of the total county societies of the State. That does not mean that the State Association is all powerful, nor that the national organization is supreme; neither of these organizations can function without the County Society, nor can the County Society function to the fullest without the entire membership being in accord. The State Association, like the County Society, belongs entirely to the individual member. That is, the membership of the State Association and the County Society are the same; that the wishes of the membership are transmitted through the County Society to the State Association.

The State Association is attempting, through the medium of its Journal, to keep you informed not only by giving you the best in scientific material, but also by keeping you informed of what is happening over the state and nation in whatever may affect the profession individually or as a whole, economically, politically or socially.

A Speakers' Bureau has been organized and under efficient management is furnishing qualified speakers to all medical societies over the State. It will also furnish speakers for district meetings, the expense to be borne by the State Society if necessary. The District Societies of the State are now maintained by a definite grant from the State Association. Every member of the County Society is also a member of the District Society, in addition to the State Association. No dues are collected for district membership.

Regional Postgraduate Courses will be held over the State and, without cost to the membership of any County Society, you may attend these courses. The subjects presented will be handled by men of authority in their respective specialties and will be the latest on the subject; given in a way that will benefit all attending.

These are a few of the things your State Association is attempting to do for you. Use them. The office of the State Association is your office. The Executive Secretary will be glad to give you whatever aid possible. The officers of the Association are your officers, just as much as the officers of the County Society. If you are in Columbus, stop in the office of the Executive Secretary for any advice, whether medical, social or "what have you."

The Councilor of the District is your direct contact with the State Association, not just the County Society. The Council of the State Association, which is composed of State Officers and the Councilors of the ten districts of the State, are continuously looking out for your interests, scientific, political or economic. The Council is made up of men who give of their time for your organizations. It means leaving their practices to do this job for the organizations of the medical profession.

WM. M. SKIPP, M. D.,
Councilor Sixth District.

MEDICAL AND HEALTH SERVICES FOR DEPENDENT CHILDREN

Under an arrangement worked out by the State Division of Public Assistance and officials of the Ohio State Medical Association, every county medical society will be asked to assist and coöperate with local officials of that Division in establishing and administering a medical and health program for children receiving aid from the Aid to Dependent Children's fund, provided by Amended House Bill No. 544, enacted by the 92nd General Assembly.

It is hoped that your Society will give this matter earnest consideration as soon as your county administrator of public assistance has presented the plan to your Society and that the Society will take an active part in its operation, through its representatives on the Professional Advisory Committee which will be created.

This program needs the guidance of physicians and those qualified to provide advice and assistance must be supplied from the membership of the various county medical societies. The Division of Public Assistance is seeking the counsel and help of organized medicine in each county. *It is hoped that your society will assume this responsibility* and make the most of this opportunity to offer constructive assistance. Administrative details will be worked out for the most part on a local basis, so *it will be up to each county medical society to guide the work in its jurisdiction.*

Officials of the State Association have held several extensive conferences with officials of the State Division and *have been assured that every effort will be made to adapt the program in each county to local conditions and needs, and on agreements worked out with the local medical society.*

Here is a chance for your Society to exercise a large portion of control over the administration of a new health and medical program.

The accompanying copy of a communication sent by the State Division to county administrators and county boards of public assistance under recent date will give you complete information relative to the organization of the Professional Advisory Committee and its functions. We will keep you posted on additional details as they are worked out through conferences here in Columbus.

—*Ohio State Medical Bulletin.*

STATE OF OHIO
Department of Public Welfare - Division of Public Assistance
1201 State Office Bldg., Columbus

Organization of a Professional Advisory Committee for Medical and Health Services in a Public Assistance Program for Dependent Children

I

It is recommended by the State Division of Public Assistance, after consultation with the State Department of Health and officials of the Ohio State Medical Association, that there be set up in each county a professional advisory committee of five to assist the county administrator and county board of public assistance in establishing and administering a medical and public health program for children receiving aid from the Aid to Dependent Children's fund, and in conformity with the provisions of Amended House Bill No. 544.

It is suggested that the professional advisory committee include:

(a) The county health commissioner or a representative selected by the health commissioner or by the county board of health.

(b) The chairman or secretary of the local medical association.

(c) A representative of the dental profession. The dentist should be selected from a list recommended by the county dental society, if any.

(d) Two additional physicians having membership in the local county medical association selected by the county board of public assistance and the three professional committee members. Preference should be given to physicians who have had experience in pediatrics.

II

The original function of the professional advisory committee will be to assist the county administrator and the county board of public assistance in developing a program of medical and health services and in establishing health standards for children receiving assistance from the Aid to Dependent Children's fund. Suggestions relative to services and health standards will be sent to counties from time to time by the Division after conferences with the State Department of Health and officials of the Ohio State Medical Association.

III

When and if a program to integrate medical and health services in the community, in behalf of all Public Assistance clients is contemplated the professional advisory committee should be called upon for advice and assistance to aid in the fullest utilization of existing local resources and in avoiding duplication of services.

As pointed out above, from time to time as the various steps in this program are worked out by the above three state-wide agencies, suggestions for your guidance will be transmitted to you, based on these deliberations. Within the next few weeks standards for health and medical care for children will be ready for distribution.

THE MEDICAL CRIER

A Page of News and Views From Here and There in the Medical Field

● All the furore and shouting about Socialized Medicine reminds us of the threat of another war in Europe. We feel it in our bones that it is coming and soon, yet it seems to be miraculously averted from day to day, week to week and month to month. To the average medical practitioner it seems that something ought to be done to put a stop to it, but individually we feel helpless and so absorbed in the personal problems of our patients that we can't see the forest for the trees.

Over in England, after years of highly organized State Medicine, are they pointing with pride to improvement in the national health? Not when they lower the standards for enlisting recruits for the Army. Not when Sir Kingsley Wood, Minister of Health, urges the nation to attain a higher health standard, advocating higher wages, better housing, outdoor exercise and better food. You can't use Health Insurance as a substitute for these things!

● English doctors are greatly incensed after reading "The Citadel" by Dr. A. J. Cronin who exposes the trials of a conscientious physician trying to do good work with his hands tied by the red tape of the insurance system. But what irks them most is the talk about fee-splitting and medical prostitution in Harley Street, London's "Back Bay" district. We extend them our sympathy, for we have had our troubles with writers who want to write medical stuff that will sell.

● Perhaps you missed the item in the paper about the suicide of F. A. And if you saw it you may not know the story back of it. F. A. is gone now and his wife won't need to go through with the divorce, but the whisperings will go on and affect the rest of her life and the children's too, probably. You see, when he was a patient in the hospital following the accident and the fracture was slow uniting, he never knew what those shots they gave him were really for.

IN MEMORIAM

David Barringer Phillips

SALISBURY, N. C.

September 24, 1937

IN MEMORIAM

John S. Zimmerman

September 25, 1937

Old Doctor B. was a pretty good friend of the whole family and he kept right on treating him and checking up everything and never said anything much but looked over the rest of the family too, on occasion.

So when the insurance company wanted to settle up and happened to ask to see the hospital records on such a long drawn out case, he readily gave them written permission. Well, it got around somehow about his Wassermann and his wife heard it and they went to old Dr. B. who was flabbergasted and hardly knew what to say but tried to smooth things over and couldn't. F. A. had always been a pretty decent fellow and didn't know how the whole thing had happened anyhow and he really loved his wife and when she applied for divorce he just couldn't take it. Well, he's gone now so the divorce is off, but it's a good idea never to let anybody have a report even with the patient's consent unless that patient knows what's in it.

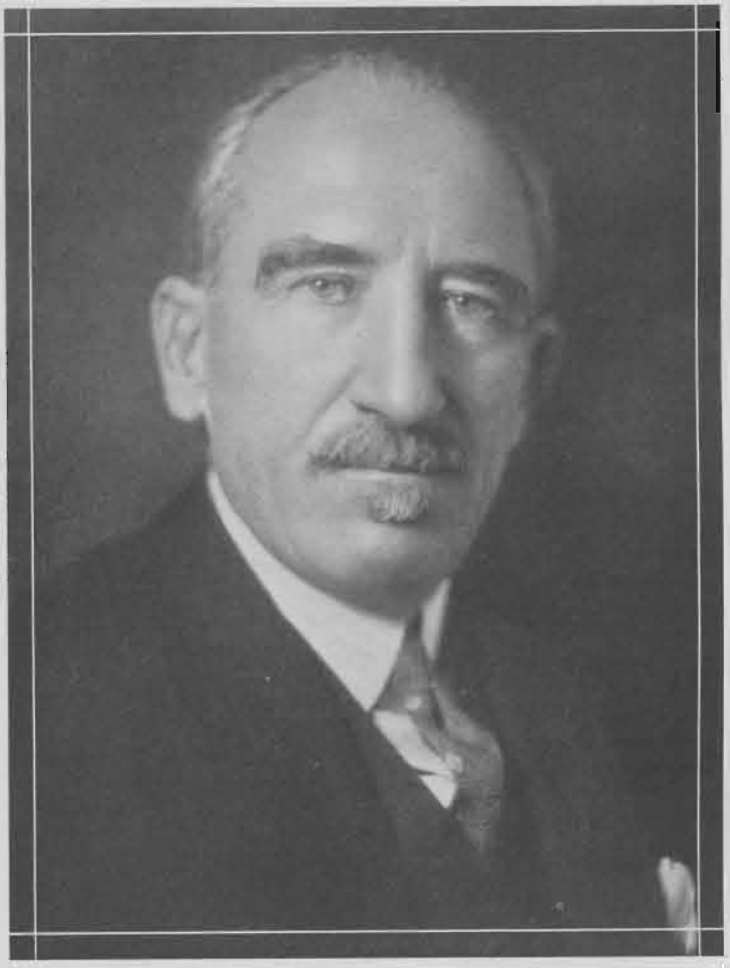
Word comes to us by way of press dispatch that Dr. Arthur W. Thomas of Ashtabula has been appointed Chief of the Bureau of Child Hygiene and Maternal Welfare, with offices in the State Dept. Bldg., Columbus, Ohio.

Naturally we of Youngstown and Mahoning County are pleased to add our felicitations. We have known Dr. Thomas as a member of our County Society, wherein he filled so successfully the offices of Secretary and President, as a member of the visiting staff of the Youngstown Hospital, where he long conducted a service in Pediatrics, and as a personal friend. In whatever relationship, it was always fulfilled with efficiency, as well as with consideration for the opinion of others.

We congratulate Mr. Davey and the State Administration upon their wise choice for this important position.

Dr. Thomas and family will move to Columbus this fall. The Doctor invites one and all, when in Columbus, to call upon him at his offices in the State Dept. Bldg.

Drs. Baker and Brant attended the annual cancer meeting conducted by Dr. Gischieter and associates, at Johns Hopkins hospital early in October. This has become an annual pilgrimage with these men, and they gain wide clinical knowledge and deep inspirational stimulation. Perhaps more of us should attend.



DR. JEROME M. LYNCH

Early in his career, Dr. Jerome M. Lynch became associated with Dr. J. P. Tuttle, who was pioneering in Proctology, and who placed the science upon a firm foundation.

Dr. Lynch is Professor of Proctology at New York Polyclinic and Consulting Surgeon to the New Jersey State Hospital. He was active during the World War as Lieut. Commander of the Medical Reserve Corps, U. S. N. on U. S. S. America carrying troops, and Surgeon at the Naval Hospital, Brooklyn.

He is a Fellow of the American College of Surgeons, Fellow of the American Proctologic Society, whose presidency he held in 1917-1918, and a member of the Gastro-enterological Society. He is the only man to hold membership in both the proctologic and gastro-enterologic societies.

He is the author of "Diseases of the Rectum and Colon"—1914, and of "Tumors of the Colon and Rectum," an autographed copy of which is in the library of the Youngstown Hospital. He is author of numerous es-

says on cancer of the bowel and has written extensively. He is on the editorial board of The American Journal of Surgery, and on the Editorial Council of Review of Gastro-enterology and the American Journal of Digestive Diseases & Nutrition.

He was the first man in this county to do an ileostomy. With all these accomplishments he is still a "regular fellow."

P. J. FUZY, M. D.

SECRETARY'S REPORT

October, 1937

Again the grim reaper has entered the fold and taken two of our faithful members: Drs. John Zimmerman and David Phillips. Both of these physicians have been ill for several months. Their passing is greatly regretted by members of the local profession and many friends. Both physicians have made a valiant record as medical practitioners in this community. Resolutions have been spread upon the minutes of the Mahoning County Medical Society and a copy of the same sent to the respective families.

The activities of the County medical organization have begun in excellent style. The first regular meeting was held at the First Christian Church, September 21. The speaker of the evening was Dr. Louis Karnosh of Cleveland, whose subject was, "Three Mile Posts of Modern Psychiatry."

Dr. Karnosh has a unique manner of presenting his subjects to an audience. He is descriptive and gives elucidating word pictures of the thoughts in his mind. Fever therapy treatment was explained and results presented. His explanation of vitamin therapy showed their extreme value in certain deficiency diseases. The use of Insulin shock for the treatment of Dementia Precox seems to be a ray of hope for these unfortunates. However, it must be admitted that this ray of hope is still not enormous.

It might be fitting in this report to give recognition to the Cleveland Oto-laryngological Club - Pittsburgh Oto-laryngological Club for holding a meeting in this community. It was made possible for all the members of the local Society to attend. Credit for this opportunity is due largely to prominent members of the Mahoning County Medical Society who are specialists in this field. The speaker was Dr. A. W. Adson of the Mayo Clinic whose subject was, "Neurological Complications of Sinus and Mastoid Infections." It was an excellent address. Many specialists from other cities attended.

Council met on October 1, 1937. The business of the Society was cared for and many phases of society activity were considered.

The treasurer, Dr. Bachman, reported that he had purchased three one thousand dollar government bonds, present value $2250.00, maturing in ten years for the Society. He had been authorized to do this by Council.

The following applications for regular membership to Mahoning County Medical Society were acted on favorably by Council at the last meeting:

DR. LEWIS K. REED, 1920 Market Street;

DR. GEORGE MCCONNELL MCKELVEY, 101 Lincoln Avenue;

DR. MAURICE BRACK BOWMAN, Home Savings & Loan Bldg.

The following applications for Associate Membership of Mahoning County Medical Society were acted on favorably by Council at the last meeting:

DR. J. H. HERALD (Class D), Dollar Bank Bldg.

DR. WM. FRANKLIN HATCHER (Class A), Home Savings & Loan Bldg.

Any objections to the above applicants should be made in writing to the Secretary before Nov. 1, 1937.

ROBERT B. POLING, M. D.,
Secretary.

QUALIFICATIONS OF A COUNTY SOCIETY SECRETARY

At the Annual Conference of County Secretaries, held by the Michigan State Medical Society in Lansing, February 7, Dr. H. W. Porter of the Jackson County Medical Society contributed the following specifications for a good county medical society secretary:

1. Know every man in the county society by his first name.

2. Be able to take minutes so they can be read years later.

3. File these minutes so they can be found.

4. Answer all correspondence promptly and keep a carbon copy for his own protection and reference later.

5. Know more about what each committee is supposed to do than the committee does and

6. Know if they are doing it, and

7. Find out why they are not doing what they are supposed to do, and

8. Be able to pinch for them if they do not do it, till the president has time to appoint another committee.

9. Realize that the position as Secretary is a JOB which is an admission on the part of those who elected him that he is a "horse for work" and that the honorary job of president is more often a matter of popularity based on years of residence in the community.

10. Be ready with a substitute speaker, of good standing, on five hours' notice.

11. Know how to get the dues in and still make the delinquent member proud that he had such a standing that he could be late with the payment.

12. Expect criticism for a bad program even if he had nothing to do with it.

13. Expect no credit for a good program if he did arrange it.

14. Pull spare dinners out of a hat for those who never make reservations and make them think that it is an honor to be allowed to serve them when they condescend to grace the meeting with their presence.

15. Know who had the lantern last, where it is, how to produce it out of the said hat, and how to make it work at the last minute.

16. Apologize for the wrinkles in the sheet that is used for a screen.

17. Know at a glance who the stranger at the meeting is before he gets kicked out, and why he is there.

18. Be a mind reader and know who is sick, of what, where and why.

19. Be able to kid the kidders and take kidding gracefully.

20. Know all state officers by face and name, including the offices they hold and their preference for scotch and soda, beer, or bourbon and water.

21. Keep his own office in running order and his patients satisfied that the last meeting he attended was an important consultation at a high fee.

22. Never get sick or sick of the job.

23. Never be late or absent.

24. Know who the workers are in the society so the president can appoint them to committees and juggle them around each year so they are always busy and still think that the job is a new one that only they can handle properly.

25. Never mention any of the above items to any one.

Reflections On the Friedman Test

Poem by K. L. M., New York

Tell me, tell me, little rabit,
Does a fertilized egg my womb inhabit.
Hurry, hurry, little bunny,
This suspense is not so funny.
Confirmation of prophylaxis,
Is the thing that would relax us.

THE MEDICA

October 5—

Regular Staff Meeting, Youngstown Hospital
8:30 P. M.

October 6—

Pathology Lecture, First Christian Church

October 12—

Regular Staff Meeting, St. Elizabeth's Hospital

October 13—

Pathology Lecture, First Christian Church

October 19—

Mahoning County Medical Society Meeting,
Youngstown Club

October 20—

Pathology Lecture, First Christian Church

October 27—

Pathology Lecture, First Christian Church

November 2—

Regular Staff Meeting, Youngstown Hospital

November 3—

Pathology Lecture, First Christian Church

November 9—

Regular Staff Meeting, St. Elizabeth's Hospital

L CALENDAR

November 10—

Pathology Lecture, First Christian Church

November 16—

Dr. Charles A. Doan, O. S. U.—Further Analysis of the Varied Mechanisms Underlying the Clinical Anaemeas.

December 21—

Annual Meeting—Election of Officers.

January 18—

Annual Banquet—Speaker: Cornelius J. McCole, Wilkesbarre, Pa.

February—

Fractures—A Local Program.

March—

Dr. M. Ed. Davis, University of Chicago—Lying In Hospital.

April—

Postgraduate Day—The Lahey Clinic, Boston, Mass.

May—

Dr. Paul White, Cardiologist, Massachusetts General Hospital.

June—

Interne Competition with Case Presentations.

APPLIED MEDICAL PHARMACY

Shaped Plastic Masses, Pills and Suppositories

Pills are round or oval masses, generally weighing from 0.1 to 0.6 Gm. and they supply a convenient way to administer active but not corrosive drugs in a portable, practically tasteless form. They should consist of evenly divided, accurate doses in a mass, sufficiently firm to hold its form under atmospheric conditions, but which readily disintegrates in the intestinal tract.

Pills when freshly prepared are dispensed with a bland conspergative (dusting powder) which keeps their surface dry and prevents their sticking together.

Pills of factory make are protected from injury of handling and air changes by having a coating of gelatin, sugar, rosin or otherwise and may be variously colored. Stock pills, even when well coated, become so dry and hard after long storage that the medical effect is lost.

Better results from pill medication are obtained by prescribing the ingredients to be freshly massed and divided by the pharmacist, who, if you prefer it, will encapsulate, the pills or even coat them with balsam to mask any unpleasant taste, usually however, licorice, lycopodium or some simple powder will furnish sufficient protection.

Fourteen official pills are considered, two U. S. P. and twelve N. F., all of which you are advised to read about before writing your own formulas.

Suppositories are molded forms of suitable size and shape for insertion into the various orifices of the body. They consist of medically active material incorporated in a bland base of solid consistency which must melt at body temperature.

The U. S. P. gives directions for making: (a) Cocoa Butter Suppositories by three methods: hand-made, cold compression by machine and by fusion process which requires the melted mass to be poured into chilled forms. (b) Glycerinated Gelatin Suppositories which are made by the fusion method only.

Rectal Suppositories should be tapered and weigh about 2 Gm. each.

Vaginal Suppositories are globular or oviform and weigh 5 Gm. each.

Urethral Suppositories (Bougies) are pointed, pencil shaped and 7 cm. long, each weighing 2 Gm. or 14 cm. long weighing 4 Gm. each.

Besides these general formulas, two specific examples are recorded:

Suppositoria Glycerini; Glycerine with about 8% hard soap (Sodium Stearate).

Suppositoria Boroglycerini: Glycerite of Boroglycerin and Glycerin of each, 30%; Glycerinated Gelatin, 40%.

Suppositories are all to be protected from the heat and atmospheric changes.

Any medicine suitable for mucous membrane application may be prescribed in suppository form, using either 01. Theobrom. or Gelat. Glycerin, but very irritating materials, as Salicylic Acid or bulky powders are unsuited for this form of medication, liquids in small amounts are permissible if some wax is used to retain the proper melting point.

Aqueous Liquids

Waters of the official recognition are either clean, potable, untreated water or the same heat treated or the latter with an odorous, volatile, solid, liquid or gas dissolved therein.

Aqua, Aqua Destillata, Aqua Destillata Sterilisata and Aqua Redestillata are plain and without odor, all others are scented.

Water is the best solvent and diluent we possess for dissolving a great variety of substances without altering their properties.

Waters of Ammonia, Stronger Ammonia, Camphor, Chloroform, Hamamelis and Phenol claim some

medical value, the other eleven are used only as vehicles and mild flavoring agents.

Syrups constitute a popular class of important pharmaceutical preparations which are used to flavor, disguise or to improve the taste of a variety of medical substances.

Sucrose (white crystaline sugar) an excellent preserver and is an ideal sweetening agent, it dissolves in one-half its weight of water, and constitutes the bulk of most syrups.

The thirty-nine official syrups may be best considered under two general headings and five groups:

Vehicle Syrups—

Acidulated
Alkalinized
Neutral

Acidulated—

Syr. Acid. Cit.
Syr. Aurant.
Syr. Ceras.
Syr. Rub. Id.

Alkalinized—

Syr. Asar. Co.
Syr. Eriodict. Arom.
Syr. Glycyrrh.
Syr. Rhei.
Syr. Rhei Arom.

Neutral—

Sirup
Syr. Acac.
Syr. Althae.
Syr. Aurant. Flor.
Syr. Balsam. Tolu.
Syr. Cacao Praep.
Syr. Cinnam.
Syr. Prun. Virg.
Syr. Sarsap. Co.
Syr. Thymi
Syr. Trifol. Co.
Syr. Zingib.

Medicated Syrups—

Medical Plant Products
Medical Inorganic Substances

Plant Products—

Syr. Ephed. Sulf.
Syr. Ipecac.
Syr. Ipecac. et Opii
Syr. Pin. Alb. Co.
Syr. Pin. Alb. c. Morph.
Syr. Scill.
Syr. Scill. Co.
Syr. Seneg.
Syr. Senn.

Inorganic Substances—

Syr. Acid. Hydriod.
Syr. Ammon. Hypophos.
Syr. Bromid.
Syr. Calc. Lactophos.
Syr. Ferr. Iod.
Syr. Hypophos
Syr. Hypophos. Co.
Syr. Pot. Guaiacolsulf.

The question may arise concerning the medical properties of some syrups placed in the vehicle list but the therapeutic effect should be considered as only secondary to their values as flavoring agents.

The object in mentioning the reaction of the syrup vehicles was merely to indicate the choice of selection in avoiding certain limits of incompatibilities to be discussed later.

Infusions, Decoctions, Vinegars

Infusions are prepared according to the U. S. P. general formula which directs that the plant drug (representing 5% of the finished product) be extracted by maceration in water for a period of forty-five minutes and then strained. Whether boiling or cold water is to be used depends upon the nature of the constituents to be extracted. Where specific formula is given, the procedure must vary, also for infusions of potent drugs the physician must specify the strength.

The National Formulary directs the process for three popular infusions:

Infusum Digitalis

Made from biologically standardised "Powdered Digitalis" 1½%, Alcohol 10%, as a preservative and finally Cinnamon Water is a flavor.

Infusum Gentianae Compositum

Gentian, Coriander and Bitter Orange Peel are percolated with dilute Alcohol to make a special tincture-like concentrate, which is to be freshly mixed with three times as much water to form the infusion.

Infusum Cennae cum Magnesii Sulfate (Black Draught)

Senna 6%, Manna and Epsom Salts of each 12%, Fennel 2%.

Decoctions are recognised only by a general formula in the National Formulary. They are made, unless otherwise directed, by boiling the plant drug (5%) in water for 15 minutes, cool and strain the product.

Physicians should specify the concentration of potent drug decoctions as is done with Infusions.

Vinegars are prepared by exhausting plant drugs with Water containing 6% Acetic Acid. The only one now official is the 10% Acetum Scillae U. S. P., used chiefly in making the Syrup of Squills of which it represents 45% of that very useful galenical.

These three classes of pharmaceutical preparations are the last of a fast disappearing type of medication, relics from the time of Galen.

Infusions and Decoctions are still useful remedies in rural districts and are popular with foreign patients. Herb Teas may easily, quickly and economically be prepared in the home from plants grown in the field, lane or garden, or purchased in convenient small packages at the pharmacy.

The class of drugs which lend most value here are the mild demulcents, cathartics, diuretics and expectorants.

The objectional features are: the necessity for frequent renewal, as they so quickly mold and ferment, also the exceedingly unpleasant taste; both conditions may be overcome, however, by converting the tea into a syrup by adding sugar which improves the flavor and preserves the quality.

Vinegars originally were made from natural vinegar which was quite unstable and variable in strength, but now is replaced by definite Dilute Acetic Acid. This acid is an excellent solvent for many drug constituents but cannot replace Alcohol in most cases which have given away to the more dominant Tinctures.

Aqueous, Opaque, and Murky Liquids

Mucilages are thick, viscous solutions of medically inert gums in water. They are useful as vehicles and serviceable adjuncts, demulcents and emolients. They spoil easily, develop molds and ferment, therefore only small amounts should be prepared at a time.

Three are official:

Mucilago Acaciae (35% Gum Arabic, Sod. Benz. 1/10%).

Mucilago Chondri (3% Irish Moss).

Mucilago Tragacanthae (6% Gum Tragacanth, Glycerin 18%).

Mucilages are incompatible with Alcohol and with mineral acids.

Emulsions are permanent opaque suspensions in water, of an immiscible liquid or an insoluble resin, skillfully manipulated into a homogenous fluid by means of some gum or an albuminous substance.

Ten official products will be recognized as answering this description.

Two are natural emulsions: Cow's Milk, Fresh Egg Yolk.

One is of a gum-resin: Asafetida.

One with a volatile oil: Oil of Turpentine.

Two contain Mineral Oil.

Four are Cod Liver Oil Combinations.

Emulsion of Asafetida and of turpentine are not sweetened or flavored.

Emuls. Ol. Morrh. c. Hypophos. and the Emuls. Petrolat. Liq. c. Phenolphthal. are sweetened with saccharin, all other emulsions of this type contain some form of sugar. The various flavors used are orange, vanilla or wintergreen.

Mixtures are murky, aqueous liquids containing finely divided insoluble solids, imperfectly held in temporary suspension by increased density provided by the use of acacia, glycerine or syrup. They are for oral administration and must be dispensed with a shake label. Six official formulas are in general use. The first two are U. S. P., the others are N. F. products.

Mistura Cretae (Chalk Mixture).

Mistura Opii et Glycyrrhizae Com-

posita (Brown Mixture).

Mistura Carminativa (Dalby's Carminative).

Mistura Copaibae (Lafayette Mixture).

Mistura Pectoralis (Stoke's Expectorant).

Mistura Rhei Composita (Mixture of Rhubarb and Soda).

Magmas are turbid suspensions of colloidal substance, in which the flocculent nature of the formed solid, holds any precipitate in abeyance.

Three Magmas are recognized:

Magma Ferri Hydroxidi U. S. P. (Arsenic Antidote).

Magma Magnesiae (Milk of Magnesia) also U. S. P.

Magma Bismuthi N. F. (Cream of Bismuth).

Both Magnesia and Bismuth products are antacid but with opposing effect on the bowel action.

Lotions are aqeous cloudy, alkaline combinations of astringent or antiseptic chemicals and are intended strictly for surface contact without rubbing. They each contain some precipitate and must be thoroughly agitated before applying.

The N. F. presents six formulas:

Lotio Alba (White Lotion-Zinc Sulfate, Sulfurated Potash, Water).

Lotio Calaminae (Prepared Calamine, Zinc Oxid, Glycerin, Lime Water).

Lotio Calaminae Phenolata (with 1% Liquid Phenol).

Lotio Flava (Yellow Wash-Mercury Bichloride, Lime Water).

Lotio Nigra (Black Wash-Mild Mercurous Chloride, Acacia, Lime Water).

Lotio Plumbi et Opii (Lead Acetate, Tinct. Opium, Water).

The white, Black, and Yellow Lotions must be freshly prepared.

Miscellaneous Media Liquids

Elixirs	Solutions
Spirits	Liniments
Tinctures	Camphorates
Fluidextracts	Sprays
Fluidglycerites	Collodions

Elixirs are pungent, sweetened aromatic solvents, which are intended to modify, improve or disguise the taste of saline, bitter or acrid drugs.

Elixirs of ancient origin were quack nostrums supposed to possess some mysterious virtue of life rejuvenation. Many of the official elixirs merit condemnation for the same reason. Their popularity is unwarranted since self-medication is encouraged by any model of ready-made mass prescription.

Several of the Elixirs contain no medication or such a slight amount as to be considered only as vehicles or adjuvants.

Of the forty-six recognized Elixirs, all contain either alcohol or glycerin as a preservative and solvent; in ten of them, sugar has been replaced by Saccharin or Glycerin as the sweetener, so that diabetics may use them.

The Alcoholic content of Elixirs is quite too variable to attempt to remember; Elix. Aquosum and Elix. Chloral, et Pot. Bromid. Co. are Alcohol free, others average from 3% to 42% Alcohol, while a new addition to the family: Elixir Iso-Alcoholicum, consists of two distinct but miscible liquids of high and low percentage Alcohol.

Iso-Alcoholic Elixir is designed to produce a perfectly clear preparation with any of the numerous therapeutic agents which are desirable to have dispensed in this type of vehicle. The success of the technique depends upon blending the two in proportionate quantities to produce the best solvent or the nearest Alcoholic strength to form a clear solution of the prescribed medicament, whether it be Tr. Digit., Fldext. Ergot., Fldext. Grindel. or some other liquid or solid drug. The pharmacist has at hand the required data for such calculations.

Spirits are alcoholic solutions of volatile substances whether solid, liquid or gas and are made by simple solution, carbohydrate fermentation or by distilling the products of chem-

ical reaction. Twenty-two are official.

Spiritus Oleorum Volatilium: This is a general formula for making Spirit of any volatile oil (6½%) by dissolving the specified oil in alcohol.

Spirit of Nitroglycerin is a very dangerous explosive and if by accident it is spilled, pour over it at once, a solution of potassium or sodium hydroxide which will decompose it.

Spirit of Peppermint and of Spearmint are colored green by agitation for several hours with the leaves and tops of their respective mints, the other spirits range in color from reddish-brown to colorless.

SOLUTIONS: Liquors constitute a class of assorted solids, liquids and gases derived from mineral, plant, animal and dye-stuff products, dissolved in a liquid solvent of water, alcohol or oil, depending upon physical requirements of the constituents.

Of the fifty-four official Solutions, 34 are inorganic and 20 are organic products including four which are strictly coloring agents.

LINIMENTS are oleogenous, saponaceous or alcoholic liquids and one solid (Linimentum Saponis Spissum: Solid Opodeldoc) in which is dissolved or suspended for the local application, to produce some irritant, astringent, antiseptic or anodyne action.

Dentilinimentum Aconiti et Iodi Compositum is particularly suited for use within the mouth: Iodine 2%, Fldext. Aconit. 25%, and Chloroform 30%.

COLLODIONS are solutions of soluble Pyroxylin (Gun Cotton) 4% in a liquid composed of Ethyl Oxide (solvent ether) ¾ and Alcohol ¼. It is very inflammable and explosive. The film of cotton left upon evaporation is hard and contractile unless rendered pliable by certain other additions.

Four Collodions are representative:

Collodium.

Collodium Flexile (2% Camphor, 3% Castor Oil).

Collodium Salicycum Compositum (Acid. Salicyl., Ext. Cannab. of each 10%).

Collodium Stypticum (Tannic Acid 10%).

The effect is questionable concerning some of these medications.

NEBULAS: Sprays are clear, Light Liquid Petralatum solutions of oil-soluble medicaments and volatile oils for local application to the respiratory tract mucous membrane. Four are recognized in the National Formulary:

Nebula Aromatica.

Nebula Ephedrinae (1% of Alkaloid, not in the form of a salt).

Nebula Ephedrinae Composita (Ephedrine 1%, Camphor, Menthol each ⅗% and Oil of Thyme $\frac{3}{10}$%).

These popular products are simply and easily prepared by the pharmacist and may be given any suitable tint with oil-soluble dyes, then, too, other volatile oils may be substituted, in a personal prescription, to give a variety of flavors and avoid the monotony of similar ready-made formulas.

CAMPHORATES: Certain organic chemical solids when intimately mixed, react upon each other to form a liquid product. This remarkable phenomena causes a modified therapeutic action of the drugs thus combined.

Over a score of solids in combination of various kind will resolve into a liquid state. This well known fact attracts most of the interest in pharmacy, to the subject of drug incompatibility.

Three of these liquifying combinations have become popular enough to achieve recognition in the official standards:

Chloral Camphoratum.

Menthol Camphoratum.

Phenol Camphoratum.

"Eutectic Mixtures" have been proposed as a descriptive name for these solutions of solid in solid.

J. J. GILL, M. D.

CANCER OF THE STOMACH

By G. W. McKELVEY, M. D.

There are approximately 38,000 deaths a year in the United States from cancer of the stomach and this figure represents 42% of all deaths from cancer in this country. The disease affects men three times as often as it does women; representing in men one-third and in women one-fifth of all cancer deaths.

What then can be done about this very prevalent of maladies? The answer lies in early, accurate diagnosis and prompt, radical surgical treatment. This is an easy statement to make but most difficult to fulfill because of the insidious nature of the disease and the patient's natural disregard of intermittent, early symptoms.

Symptoms are conspicuous by their absence until the tumor interferes with normal stomach motility and physiology; the former giving rise to retention and obstruction and the latter to lowered gastrict acidity with consequent delayed digestion. You are all familiar with the many complaints patients make referable to their stomach and digestive apparatus —but when a patient, over 30 years of age and not a gross neurotic, complains about gradually increasing indigestion, dull gnawing epigastric pain or any one of the numerous danger signals we must remember that early and reasonably accurate diagnosis is only possible by use of the x-ray. All other help from physical examination and laboratory findings are of little use early and often serve only to lull us into feelings of false security. Recently, however, the gasteroscope has been perfected and makes possible direct visual inspection of the stomach's interior but all of its users admit that so far it but supplements a careful G. I. series. Of course, many negative x-ray studies will be made; however, in any case with gastric symptoms, its use should be a part of the physical examination if we are ever to achieve our first aim, namely, early diagnosis.

The next point of interest is the differentiation of various conditions which simulate gastric cancer. Of these, gastric ulcer is by far the most important; firstly because it is often difficult to differentiate benign from malignant lesions clinically and roentgenographically; and secondly because a benign lesion may undergo carcinomatous degeneration. On the latter point authorities differ as to exact percentage, figures ranging from 5 to 25% in the literature, but all, I believe, agree that such change is possible. Of help in the differentiation may be the following criteria listed by Balfour:

(1) Change in the character of the clinical course, symptoms and response to treatment of any gastric ulcer.

(2) A combination of advanced age and recent onset of symptoms.

(3) Early gastric retention or obstruction accompanied by achlorhydria.

(4) Persistence of blood in gastric contents and feces.

(5) Presence of a niche larger than 2.5 cm. in diameter.

(6) Persistence of the lesion by x-ray in the face of adequate medical treatment.

(7) And lastly, operative exploration if there be any lingering doubt, as gastric resection in treatment of gastric ulcer is gradually increasing in favor.

Rarer intrinsic lesions encountered include benign tumors, syphilis and tuberculosis. Of these, syphilis is the most important and, if suspected, adequate treatment should be instituted and the nature of the lesion followed by x-ray.

Extrinsic lesions including adhesions from a chronic gall bladder, carcinomas of pancreas, gall bladder and colon and, rarely, coronary dis-

ease—should be ruled out.

Once the diagnosis is reasonably certain cure is only to be effected by surgical removal and in any case, no matter how formidable the lesion may appear in the x-ray, exploratory operation is advisable, as palliative procedures can often be applied which will prolong life and make existence bearable for the patient. The existence of proven metastases in either the supraclavicular lymph nodes, the liver, the umbilicus, or the rectal peritoneal shelf, however, contraindicates operation as the patient is too near the end. Rectal examination is thus an important preoperative necessity. Careful evaluation of the individual operative risk is to be made and any co-existing disease of circulatory or excretory apparatus corrected in so far as possible.

Operation being decided on a careful preoperative regime is to be instituted consisting of bed rest; constant gastric lavage and drainage to reduce surrounding inflammation; thorough emptying of the bowels particularly of any residual barium meal; parenteral fluids both subcutaneously and intravenously including dextrose solution; and adequate use of blood transfusions if the hemoglobin is below 60%. A donor should always be available at time of operation.

Choice of anesthetics is important. Spinal may be used but the resultant fall in blood pressure may be harmful, and anesthesia may wear off before completion of operation. A combination of gas oxygen and local is probably the most satisfactory. It entails the least risk and gives all the relaxation needed in this particular type of work when combined with adequate preoperative medication.

Once the abdomen is opened it should be explored for metastases—if these are extensive further procedure is useless—if, however, there are a few lymph nodes in the omentum or a solitary liver nodule, the operability of the primary growth should be decided on. Extensive invasion of surrounding organs is hopeless in the great majority of cases—occasionally removal of the gall bladder or a portion of the transverse colon is a possible but formidable procedure. The lesser omental cavity is to be thoroughly explored for invasion of the pancreas and if the tumor can be dissected, free resection should be carried out—otherwise some palliative measure may be tried. Technically two other factors are of primary importance, namely the careful preservation of both the middle colic artery and the common bile duct. I have seen both these structures accidentally severed with disastrous results.

After resection of the tumor and any accompanying omental lymph nodes, the question of what type of anastomosis to use is important. Here, I believe that the procedure which can be carried out with the greatest ease and speed is the method of choice. The posterior Polya procedure is the most satisfactory, if enough stomach remains, otherwise Balfour's operation is probably the most efficacious.

In any event the operator's experience is the deciding factor and most anastomoses will work if done with proper attention to details.

Postoperatively, an immediate blood transfusion is usually necessary to combat shock and should be used in any event for its stimulative effect. Constant gastric drainage with gentle suction decompresses the stomach and adjacent bowel, thus removing tension and irritation on the suture line. Parenteral saline and glucose are essential for the first few days—3,000 to 4,000 cc. being given every 24 hours. The position of the patient should be as near a high Fowler's as is possible to allow advantageous mechanical position of the stomach. And, lastly, clear fluids may be started by mouth 18-24 hours after operation—given frequently in small amounts at first—later increasing the amount and clamping off the suction drainage for increasing lengths of time until one can be sure that the anastomosis is

functioning, at which time the tube may be removed.

The immediate mortality of gastric resection averages approximately 10%, pneumonia and peritonitis being responsible for four-fifths of these deaths. Ultimate results of operation depend largely on whether or not spread has taken place to regional lymph nodes. In cases with no lymph node involvement 52% of patients were well after three years in Balfour's series of 1,000 resections, while only 19% of those with regional nodes involved were alive at the end of this period. These figures are better than they seem because of failure to account for normal death rate at this period of life. In the individual case prognosis is difficult, because of the many variable factors, but of necessity must be guarded. The most important single factor in immediate mortality is the preoperative weight loss—mortality increasing in direct proportion to this factor.

To summarize:

(1) Early diagnosis, so essential if cure is to be effected, rests on careful x-ray examination.

(2) Adequate, careful pre- and postoperative treatment materially reduces immediate mortality to 10%.

(3) The surgical procedure used depends on the individual anatomical and operative variations—speed and simplicity being of primary importance.

(4) Operative results already achieved should encourage us to bring these cases to operation at the earliest possible moment.

COMPOUND FRACTURES OF THE SKULL

By SAMUEL W. WEAVER, M. D.

With the alarming increase in the number of accidents today, mainly those resulting from the automobile, there is a comparative increase in the number of head injuries with or without fractures of the skull. Of the cases where fractures exist there are many that are of the compound type which demand a different type of treatment than those that are not compounded. Because some of these are overlooked or accidentally missed I wish to call special attention to making a correct and accurate diagnosis of this type of injury.

It seems unnecessary to mention the fact that any laceration of the scalp with an underlying fracture of the skull constitutes a compound fracture, which is no different than any other compound fracture elsewhere in the body, yet at times one will hear the remark that there was a fracture of the skull seen when the scalp laceration was sutured but it was not compounded. It is not necessary to have the calvarium pushed into the brain or to have traumatized brain tissue exuding from the wound to make it a compound fracture.

With the foregoing introduction I find the easiest classification of compound skull fractures as follows:

1. Linear
2. Depressed
3. Sinus Involvement
   - A. Air sinuses (especially the frontals)
   - B. Venous (especially the saggital and lateral).

Any of the above types may or may not have, in addition, laceration of the brain or a complicating subdural or extradural hemorrhage which demands at times a more urgent operative procedure than would be considered otherwise. If, however, the patient can wait for a few hours it is much better.

What is the best method to make the diagnosis when it is not obviously noted when the wound is examined? Since the diagnosis is imperative I follow the teaching of Munro namely, placing a sterile gloved finger into the wound and attempting to palpate

the underlying fracture which can be easily felt in the majority of cases. Here one must remember that the periosteum may become rolled upon itself giving a false impression of a fracture. If there is any doubt I think one should retract the wound and look for a visible fracture, having adequate light to be of some value. Often it is wise to use both methods. In cases where a fracture can be seen in the frontal bone near the frontal sinus, an x-ray will be of great assistance and should be done to find if the inner plate of the frontal sinus is fractured, thus making the further treatment different than non sinus involvement. The ones involving the air sinuses are drained, the non sinus are not drained.

It is seldom advisable to rush the patient to the x-ray department for a skull picture when there are other ways of making a diagnosis; however, the above is an exception providing the patient is reasonable coöperative and not in severe shock. If the patient is serious then it is unwise to attempt getting a picture and at this time x-rays are to be avoided. After 24 hours the patient is more coöperative and has been treated for shock making a more satisfactory end result for all concerned. The roentgengram can be taken just prior to the operation if needed.

As a rule the patients having such injuries are first seen in the hospital and most frequently in the emergency room. The management of the patient starts from the time the patient is first seen and this should follow definite standards.

With the gloved finger the diagnosis is made of a compound fracture or the fracture is visible beneath the laceration in the scalp. If there are fragments of clothing or glass present it is permissible to remove them from the wound very carefully. If hemorrhage is profuse from a large artery or vein one is justified in tying them with a sterile ligature, preferably silk, as catgut starts up considerable reaction within a few hours time. If there is long hair falling into the wound, cut this hair close to the scalp with sharp scissors but do not shave the area as it tends to force the organisms in the wound margins deeper into the venous and lymph channels. Now place sterile dressings on the wound and treat the patient's shock, using supportive measures such as intravenous concentrated glucose (50 to 100 cc. of 50% solution). Sucrose has been advocated in 20% solutions in the same amount with equal success. Spinal punctures are often advisable after the acute shock to relieve intracranial pressure and thus improve the patient's cerebral circulation. In addition one has a keen idea of the brain damage based upon the amount of blood in the spinal fluid as well as the pressure.

At this point I do not think compound fractures of the skull should be irrigated or cleansed with any type of antiseptic or cleansing solutions. The reasoning for this is that I am not convinced that irrigation actually removes many of the organisms from the wound and there is too much chance of forcing bacteria down into the fracture or into the brain substance if it is lacerated. Common sense tells us that any irritating solution, such as iodine or dakins, would be extremely deleterious when bathed over the surface of the brain or meninges. It is doubtful if they kill many of the bacteria. It seems more logical to allow nature to control the infection, and we have much evidence that it does, providing a complete debridemount is done as described in the following paragraph.

After 24 to 36 hours the patient has recovered from shock or is definitely improved so that operation is the next step. Under general anesthesia the head is shaved for the first time and cleansed with tincture of green soap and alcohol being careful to keep the solutions from running

into the wound. The scalp is then prepared with numerous sponges of ether which removes the sebaceous material and dries the tissues of the scalp. At this point one may take a separate sponge of 1% iodine and touch the wound margins that will be debrided. If local anaesthesia is to be used also it should be infiltrated in a block fashion and not injected into the wound margins. Now it is absolutely essential to map out the plan of repair before applying sterile drapes, as the latter blind all land marks. This accomplished the surgeon proceeds to do a 100 percent debridemount including the scalp, periosteum, bone, meninges and brain if the latter is involved. The removal of lacerated brain accomplishes two very important things: first, removal of dead tissue that is of no future value and decreasing the chance of baterial growth, as we are fully aware that brain is an ideal culture medium. Secondly, lacerated brain produces an excessive gliosis with an increase in the chance of a future traumatic epilepsy. This latter fact has been brought out by Penfield in Montreal, and he has demonstrated the gliosis clinically and experimentally. Hemorrhage is carefully controlled and the wound is closed in layers with No. 7 silk. Where there has been loss of tissue and a certain amount of tension remains on the sutures it is essential to scarify the adjoining scalp to allow for subsequent edema and avoid necrosis from tissue anemia. Sterile dressings are applied dry or slightly moist and changed daily.

When the sinuses (frontals) are involved, the same technique is followed except that it is impossible to do a satisfactory debridemount of the sinus and it is not necessary. Here a drain is placed in the wound extending down to the dura, if the dura is intact, to allow it to heal from below to the surface. If the brain is lacerated then the traumatized part is removed and the drain placed in the cavity. A rigid wire mesh in the shape of a cone is quite useful. The wound is cleansed daily and dressings applied. This drain is gradually pushed to the surface and is then removed. After the wound has healed, many months are allowed to elapse before doing a secondary closure. These cases require six to eight weeks but the results are gratifying and the patient is alive.

All compound fractures are a potential meningitis and some develop this complication no matter what is done. However, the morbidity and mortality is greatly reduced and complications such as brain abscess and epilepsy are more likely to be avoided by the above procedures.

An additional word might be added concerning depressed compound fractures of the skull. These are treated as described unless the depression is sufficient to cause alarming symptoms or, in addition, excessive hemorrhage which must be controlled.

If at the time of operation the dura is not torn but one notes signs of a subdural hemorrhage, then it is necessary to open the dura and remove the clot. At other times one should avoid opening the dura in a compound fracture as it is the best barrier against infection of the brain.

The question of venous sinus involvement demands considerable surgical judgment and should not be attempted unless the operator is prepared to meet a serious hemorrhage. Their management is much the same as for simple compound fractures as described.

Conclusions

1. Accurate diagnosis of compound fractures of the skull is essential.
2. Do not operate until the patient has recovered from the acute shock. Spinal punctures or glucose are valuable.
3. Do not irrigate the wounds or shave until just before the operation.
4. 100 percent debridemount with

tight closure without drainage in simple compound fractures of the skull. With those involving the frontal air sinuses a drain is used as the sinuses contain bacteria that cannot be removed by debridemount.

5. The most common complications following compound fractures are:
   A. Meningitis
   B. Brain Abscess
   C. Traumatic Epilepsy.

ESCULAPIUS MAHONINGI

I have often wished to write a few words to replenish some space in the *Bulletin* as requested by Ye Editor.

Dr. Claude Dixon's article "A Graduate of Fifteen Years Ago Looks Back," gave me new momentum. He believes in the need of thorough training in General Medicine before any effort is made in the direction of Specialization. I fully agree with Dr. Dixon. Maybe, I'll just do some general writing for a while before specializing in verse, poetry, or maybe, novels.

The Healers of the human beings are back after summer sojourns; dreaming and speaking so freely and fluently of their enjoyable hours of play. Ah! what more happiness there would be in this world if they could speak so fluently and delve more deeply in some unexplored parts of medical science such as a cure for Tuberculosis, Cancer, and the disease of one's Heart.

Maybe the course in Pathology by Dr. Herbert S. Reichle will do much to sharpen the dull synopsis of our neurons of the central nervous system. It may reproduce, or rather, produce some new thoughts and ideas. Maybe some of us would rather be like the Groundhog, who just crawls in his abode and is not disturbed until spring.

We all have our problems in this world, some difficult and some not so difficult, and some are just like the person who couldn't see why Green Blackberries are red.

Au revoir, until I see Ye Editor for the question is, to be or not to be a Columnist.

SPEAKERS' BUREAU REPORT

Sept. 13, 1937—Radio—Dr. L. Reed —"Rheumatic Fever."

Sept. 14, 1937—(In Cleveland) To Association of New York Central Lines Surgeons on Non-Penetrating Traumatic Wounds of the Abdomen—Dr. E. J. Reilly.

Sept. 20, 1937—Radio—Dr. Martin Conti—"Exercise for the Middle Aged."

Oct. 1, 1937—Radio—Dr. E. H. Young—"Tuberculosis in Children."

Research, Constant Research

continues to improve the quality of Mead's Brewers Yeast* in the following respects, *without increased cost to the patient*:

1. Vitamin B potency raised to not less than 25 International units per gram.
2. Bottles now packed in light-proof cartons, for better protection.
3. Improved bacteriologic control in harvesting and packing.
4. **And NOW, since August 1, 1936, all bottles are packed in vacuum. This practically eliminates oxidation. Mead's Yeast stays fresh longer, as you can tell by its improved odor and flavor!**

★ A dietary accessory for normal persons, for the prevention and treatment of conditions characterized by partial or complete deficiencies of vitamins B_1 and G, as in beriberi, pernicious vomiting of pregnancy, anorexia of dietary origin, alcoholic polyneuritis, pellagra.

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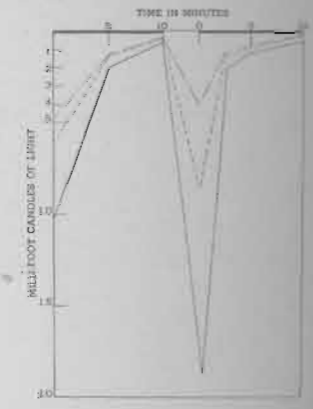
Vitamin A Deficiency

May Result in

Impaired Light *and* Dark Adaptation

of the Human Eye



The chart on the right shows progressive improvement in the visual threshold, in both light and dark adaptation, following the ingestion of Smaco Carotene-in-oil over a period of thirty days.

The eye is the first organ to show the effect of vitamin A deficiency clinically[1], and the need for vitamin A for the prevention of xerophthalmia is widely recognized.

While xerophthalmia is comparatively rare in this country, an increasing literature indicates that milder degrees of avitaminosis A are more prevalent than has been suspected. [2, 3, 4, 5, 6, 8]

Data have been published[3] which indicate that even mild degrees of vitamin A deficiency result in impaired light and dark adaptation, accompanied by an impaired visual light threshold.

It has been observed that photophobia[3], reduced visual acuity[4], sensitivity to glaring lights[3] and reduced vision at low levels of illumination[7, 3] sometimes accompany avitaminosis A.

Clinical tests [2, 4, 5, 6, 8] have shown repeatedly that in vitamin A deficient subjects, the ingestion of Smaco Carotene-in-oil, in sufficient quantity, is generally followed by an improvement in the visual light threshold, improved light and dark adaptation, and relief from photophobia where this is a result of impaired light and dark adaptation.

Suitable dosages of vitamin A activity in the form of Smaco Carotene-in-oil daily for from two to four weeks are recommended to bring the visual threshold of the patient to optimum level for the subject.

Thereafter, prophylactic dosages of Smaco Carotene-in-oil or a suitable diet may be employed to supply the vitamin A activity needed to maintain the visual threshold at optimum level.

It is recognized, of course, that many people obtain sufficient vitamin A from dietary sources and do not need a supplementary intake of vitamin A activity. The suggestions in the two preceding paragraphs, therefore, apply only in those cases in which vitamin A therapy seems indicated.

Carotene (Pro-Vitamin A) is a food factor present in certain vegetables and fruits which form part of a well balanced diet.

Smaco Carotene-in-oil (a solution of carotene – Pro-Vitamin A) is palatable and economical. It is available in dropper-top bottles, and in gelatine capsules containing 4000 U. S. P. units or 10,000 U. S. P. units each of vitamin A activity.

S.M.A. CORPORATION -:- CLEVELAND, OHIO

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Carotene . . .

(Pro-Vitamin A) is the

Fruit and Vegetable

form of **Vitamin A Activity**