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ABSTRACTS OF RECENT PUBLICATIONS OF THE PROFESSIONAL STAFF OF THE HENRY FORD HOSPITAL AND THE EDSEL B. FORD INSTITUTE FOR MEDICAL RESEARCH


The attempt to secure the best response to gastric surgery for peptic ulcer has resulted in progressive changes in operative procedures in recent years. Fallis and Barron have briefly reviewed the evolution of gastric surgery for this disease. Subtotal gastrectomy has been the single operation most commonly performed. This paper includes a partial review of the literature pertinent to surgery for peptic ulcer, an attempt to evaluate vagotomy, in combination with subtotal gastrectomy, in preventing the formation of anastomotic ulcer, and a preliminary report of the clinical results obtained in 128 patients having duodenal or jejunal ulcer upon whom a combination of subtotal gastrectomy and bilateral subdiaphragmatic vagotomy has been done, during a period from 1946 to mid-1951. The operative mortality has been 1.6%, representing 2 deaths. A total of 108 of these patients have had a satisfactory follow-up for an average of 38 months. An excellent result was obtained in 86.1% of these patients. A much longer period than 38 months of follow-up observation will be necessary to draw final conclusions as to the value and advisability of adding vagotomy to subtotal gastrectomy in an effort to prevent recurrent ulcer. In 68 of the above 108 patients a gastroduodenal anastomosis was established, and in the other 40 a gastrojejunal type of anastomosis was done. The total evidence at hand does not indicate, as yet, the superiority of either procedure, but we are continuing to do the gastroduodenostomy when the stomach can be properly mobilized and the anastomosis made without stress.


Stimulation of the fasting adult female dog with growth hormone or testosterone propionate or a combination of growth hormone and testosterone propionate resulted in a reduction in the percentage of nitrogen of intravenously administered N15 labeled glycine excreted in the total urinary nitrogen during the second, third, fourth, and fifth days of hormonal stimulation. The rate of protein degradation was not significantly reduced by either growth hormone or testosterone propionate. Stimulation of the same animals with growth hormone plus testosterone propionate, however, significantly reduced the rate of protein degradation. Reduction in

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the rate of protein loss, observed in all animals during stimulation with growth hormone or testosterone propionate or the combination of hormones was not significant.


Dihydrocholesterol and soy bean sterols have attracted attention because they prevent accumulation of cholesterol in blood and tissues of animals receiving high cholesterol diets. While the exact mechanism of action remains undetermined, it appears that the principal effect of these substances is to diminish absorption of ingested cholesterol. It seemed important to determine whether mobilization of cholesterol already deposited in tissues can be influenced at all by adding soy bean sterols or dihydrocholesterol to the diet.


A case of acute ferrous sulfate poisoning is presented in which a girl, 26 months old, ingested sixty-five iron capsules containing 13 gms. of ferrous sulfate. The child recovered; but in this dosage ferrous sulfate is a dangerous poison, as shown by 16 reported fatalities.


This paper reports the 17th case of extramammary Paget's disease of the vulva. This case is unusual in the respects that (a) the patient is alive and well 14 years following the diagnosis of this lesion and (b) the fact that the patient later developed an adenocarcinoma of the mammary gland. It is our hope that with the addition of more cases to the literature a trend or pattern may be established so that the true nature of this peculiar eczematoid picture with its characteristic cells may be better understood.


Hydrocortisone has a specific action in the reduction of inflammatory changes within the temporomandibular joint. Its action is temporary; and if chronic irritative phenomena in the dental occlusion are allowed to persist, the pain is almost certain to recur. Roentgenographic evidence of erosion of the head of the condyloid process or proliferative changes within the joint are contraindications for injection of the drug. The treatment of such cases should be surgical; however, when indicated, intra-articular injection of hydrocortisone combined with correction of occlusal defects produces excellent results. The greatest benefit from the intraarticular injection of the drug is the reduction of inflammation, pain

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and trismus. Relief is obtained with relative rapidity, and it becomes possible to proceed with an orderly program of occlusal rehabilitation. The drug should not be considered as a specific cure but as a valuable adjunct in a well-organized program.


Because general supportive care is usually the paramount initial concern in aplastic anemia, etiologic considerations are often deferred and even after study may remain enigmatic. The differential diagnosis seldom includes multiple myeloma. This report presents cases which were nosologically aplastic anemia but etiologically proved to be multiple myeloma. Multiple myeloma is extremely difficult to diagnose when it is presented as aplastic anemia. Although moderate anemia is one of the cardinal findings in multiple myeloma, severe anemia is an uncommon early manifestation. The pathogenesis of the anemia is not clearly understood. The three etiologic factors usually considered are as follows: (1) tumor replacement of normal marrow, (2) metabolic (toxic) inhibition of marrow function by products of myeloma cells and (3) renal failure with consequent azotemia.


It is obvious that cessation of cardiac activity constitutes one of the gravest and most urgent situations for which remedial measures may be indicated. After 180 seconds of total failure of the circulation, there is great danger of irreversible changes in the brain. After 300 seconds, these changes are practically inevitable. The efficacy of intelligent treatment now is well established by the numerous reports of successful cardiac resuscitation. In order to achieve these results, the surgeon must have the best possible understanding of the mechanisms involved in the cessation of the circulation, and a definite plan of action must have been formulated before the emergency. Methods reviewed for cardiac stimulation include injected atropine, intra cardiac injection of adrenalin, heart massage, and potassium chloride and electric shock for defibrillation. The authors urge that measures be planned in advance.


Concepts regarding toxemia of pregnancy, the disease of theories, have been further complicated with the advent of ACTH and cortisone. Fragmentary evidence of the pharmacologic activity of these hormones in pregnancy has led to opposed theories of etiology and treatment of toxemia of pregnancy. Some have reasoned that the administration of cortisone would exert beneficial effects. Others have suggested that a disturbance in the adrenocortical steroid metabolism in pregnancy played an important role in the etiology of this disease. Practical
experience with the administration of ACTH and/or cortisone during pregnancy has not been sufficiently extensive for accurate evaluation. Twenty-four obstetrical patients received ACTH and/or cortisone during pregnancy. Nine patients suffering from toxemia of pregnancy received these hormones as part of their treatment. Fifteen patients received treatment during pregnancy for conditions not related to their pregnancy. ACTH and/or cortisone demonstrated no favorable influence upon toxemia. The administration of ACTH and/or cortisone did not produce symptoms of toxemia. These observations confirmed the impression that pregnant patients demonstrate an increased tolerance to ACTH and/or cortisone.


A unique approach combines methods of vacuum evaporation, shadow casting, and autoradiography. Details of metal surface structure are determined by a nondestructive technique to better than 40 microns in preliminary studies. Evidence for resolution of surface detail exceeding 40 µ has been demonstrated using Cr⁵¹ with m.l.s. emulsion. It is conceivable that a resolution of about 5 µ may be achieved by using an isotope with emissions of other energy than the soft γ-rays associated with Cr⁵¹. The gross apposition technique is simple and gives good topography for orientation. Disadvantages include resolution that is frequently poor because of bad contact, spurious abrasion exposures, and mechanical and thermal movement during exposure, which is magnified by techniques used for high magnification study.


Small cochlear lesions were created by mechanical injury with five needles or with controlled electrical current in the apical, middle, and basal turn of the cat cochlea. When the cortical test of auditory function was developed the opportunity was afforded of performing a test immediately after creating a lesion in the cochlea. Healthy young adult cats were used in this experiment. The function of one ear was destroyed by entering the auditory bulla and inserting a metal probe through the round window so as to completely macerate the cochlea. At this stage, the first of a series of cortical tests of auditory function was performed. The sound stimuli consisted of pure tones generated by an audio oscillator and keyed by an electronic switch at the rate of 1 per second. The tone pulses had a total duration of approximately 135 msecs and a rise time of 10 msecs. (For frequencies above 250 cycles, the output of the electronic switch was fed through a high pass filter to reduce keying transients.) The sound source was a permoflux PDR-10s earphone which was connected to the plastic coupler by a short length of flexible plastic tubing. The minimum stimulus intensity necessary to evoke a cortical response was determined for frequencies an octave or less apart, from 125 to 50,000 cycles. A selected region of the bony cochlear wall was thinned

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with a dental drill until the scala tympani and scala vestibuli could be visualized as light-absorbing regions with the spiral ligament as a white line between them. This thinning was continued until the remaining bone was only 20 to 30 micra in thickness. At this stage one of two procedures was followed. For some animals a fine needle was introduced through the thinned cochlear wall into the spiral ligament. For the others a spark or a heating effect produced by a radio-frequency current from an electrocautery unit was applied to the bone over the spiral ligament without entering the cochlear duct. Usually about 15 minutes elapsed from the moment of creating the cochlear lesion to the completion of the cortical test and another 30 minutes to the completion of intra-vital perfusion with Heidenhain-Susa solution.


The usefulness of homografts for bridging arterial defects has been demonstrated in laboratory animals and after operations in humans. In general, these grafts are functional after weeks or even months of storage if they have been removed aseptically and have been preserved in suitable solutions at low temperature. Naturally, there is no problem in obtaining adequate homograft material for animal experimentation, but it has been difficult to obtain sterile arterial segments from human cases. It would be advantageous if specimens removed at routine autopsies (and consequently unsterile) could be rendered sterile by a chemical process which would not denature the tissue in such a way as to compromise the results of grafting. Among the grafts treated with beta-propiolactone there was no instance of fatal hemorrhage and only one instance of thrombosis. Four of the 15 animals died in the early postoperative period of causes apparently not related to the grafts (extensive pneumonia in two, intussusception in one, no obvious cause in one). Ten of the survivors were killed after three months, and the other after almost two years. With the exception of a few tiny intimal ulcerations, the grafts appeared to be in excellent condition. Histologic study showed that the grafts did not differ significantly from the picture ordinarily seen when sterile, untreated grafts are implanted. Arterial homografts can be sterilized with the agent diacetylene, but there is an unacceptable incidence of early and late complications after implantation. The compound betapropiolactone effectively sterilizes the grafts and minimal adverse effects on the grafts have been apparent. Cautious clinical trial of this method of sterilization seems justified.

MISUSED EXPRESSIONS

To the Editor:—From time to time in this section, a voice is raised in defense of correct medical phraseology. This appeal is not made by the purists in grammar, the classicists in language tradition, or the provincial perfectionists who are critical of all terminology except their own. It is made by those who have occasion to read manuscripts for publication and who review medical articles and books for the scientific literature. It is well, therefore, that at intervals attention should be called to the commoner errors in this field. Editors of scientific journals prob-
ably wince at some of the material they inspect, and it is well known that some papers presented for publication receive rejection slips because of the misuse of conventional expressions that are presumed to be in good favor. If a case report or a medical essay is worthy of being shared by others in the literature, it should be in acceptable scientific terminology.

Following are the most commonly misused expressions that occur even in “high places”: “The physical examination revealed,” “The roentgenogram showed,” “The laboratory findings demonstrated,” and combinations of these. Since inanimate subjects cannot have active verbs, these statements are grammatically and technically incorrect, but they have been absorbed into medical phraseology from one generation of medical students and authors to another. The acceptable manner of reproducing the above phrases is: “On physical examination there were,” “On roentgenograms there were,” “The laboratory findings were.” The correct usage is by far the simplest and easiest, without the blind acceptance of the hoary and repetitious.

Because the words serology, pathology, surgery, and chemistry are the names of specific medical sciences, it should be unnecessary to point out that the common clichés—“the serology was negative,” “the pathology of the tissue was negative,” “the patient was prepared for surgery,” or “his chemistry was normal”—are all quite unacceptable. When these words are used in their adjective form, the statements have a definitive meaning, as: “The serological examination of the spinal fluid was within normal range,” or “The patient was prepared for a surgical procedure (or operation).” The frequent statements “The patient was placed on penicillin” and “The infant was put on evaporated milk” are incorrect because, literally, these acts would be quite messy if really executed as stated. The terms administered, given, or fed would be acceptable in the correct expression of such phrases.

Many lesser violations of grammar and facile expression could be enumerated, and almost every earnest reader has many pet annoyances that he notes without possible redress. Among these are modifying adjectives to definite statements, words, such as “rather typical reaction,” “bluish gray,” or “reddish brown”; all these imply that the writer is not positive of his original meaning. Such expressions as “The patient had no temperature” and “The urine was negative” are obviously intolerable and are all too common misstatements that should not appear in good medical writing or speech. The standard and tried argument that common usage justifies the acceptance of these medical “hybrids” violates both technical ethnology and correct nomenclature. Their use in good medical writing often depreciates the industry and assiduous effort that the author has invested in his production.


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