EPILEPSY

A young man, aged 30, had suffered his first epileptic seizure at the age of 25 and had lessened their frequency with phenobarbital. At the age of 29 he became diabetic and the diabetes was controlled by insulin. He still had his epileptic seizures. At the age of 30 he developed coma and died.

COMA

Coma today is a challenge to the general practitioner. The challenge is not the treatment of coma but the recognition of those factors which produce it. An insulin patient afflicted with a non-diabetic illness should never be allowed to enter coma, as this can be avoided. Practitioners should recognize that in these illnesses the danger is not reaction, but coma. There is a tendency to feel that if the patient had not had diabetes he would have withstood his non-diabetic illness. What has likely happened is that he was allowed to slip into coma and given no chance to overcome his non-diabetic illness. In these illnesses frequent examination of the urine is essential, and, in general, increasing doses of insulin are necessary. Blood sugar determinations are very useful in these cases, but as a rule the difficulty of obtaining the results means loss of time and fresh information. The urine can be examined at the bedside. The urine alone can be a guide and will keep these patients from coma.

Insulin patients should be instructed to carry something on their persons stating that they are taking insulin. It is regrettable that there is not some internationally recognized mark which could be worn to protect them from those serious experiences which loss of consciousness entails. The increasing number of automobile accidents further emphasizes this precaution. Accidents usually take place away from home.

In conclusion, how does illness other than diabetes and its complications affect insulin patients? Insulin patients, with few exceptions, stand non-diabetic illness well provided an effort is made to control their diabetes and especially to safeguard them against coma. Coma in these cases is avoidable. With the recognition of this fact the number of deaths from coma in our smaller communities would be greatly reduced and brought more in line with that of the larger centres.

FACTS, FADS AND FANCIES IN THE TREATMENT OF ACNE VULGARIS*

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THE pasty, pimply, pitted individual at puberty has been observed from ancient times. As far back as the Greeks and Romans acne vulgaris was known. What name the Greeks had for it is not recorded, but Celsus described it under *Varus*. To Gorrhaeus in 1578 goes the credit of its present title.[1]

Comedo formation appears so constantly at the regular determined age that Bloch and others have long considered the condition to be the physiological response to circulating growth and sex hormones. Modern advanced youth is not spared one whit the less from this disfigurement than were his forebears, but cure of the condition is now available, which was quite unknown in other times. The seborrhœic diatheses, handed down in "oily families" and those with sensitive sebaceous mechanism form the foundation for the black head, papular, pustular and cystic display.

ENDOCRINE CONSIDERATIONS

At times, endocrine hormones, drugs, products of food and disease metabolism goad the pilosebaceous apparatus. Response is not long delayed and horny thickening occurs at the follicular openings. From this, a damming back of oil wastes and skin débris occurs. This forms a fertile pastureland for acne bacilli and their staphylococcic cousins.

Acne vulgaris may occur even in infancy, but puberty is the recognized time for the advent of these "chastity pimples of Pick". Its onset is intimately related to gonad development. Robust and frail alike are attacked. The most severe cases seem to occur in the robust and in athletes. No senile person exhibits these lesions; no eunuch has acne vulgaris. In the male sexual abstinence has been stated to aggravate the condition. To this view Whitfield[2] does not

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* Read before the Dermatological Section of the Canadian Medical Association, Ottawa, June 23, 1937.

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subscribe. The curative effect of the married state is well known. Endocrine imbalance gives a blotchy skin. Clear complexions are maintained with smooth gland function. Lawrence and Feigenbaum[3] gave pregnancy urine extract for its maturing and balancing influence upon the gonads and their internal secretion. They were favourably impressed with their results. Recently, around a table presided over by McCarthy and Hunter,[4] this same therapeutic agent was thoroughly dissected and its virtues and failings were fully appraised. It was found to lack sustaining qualities in the treatment of acne vulgaris. From the discussion came the warning, first voiced by Collip, regarding the long-continued use of gonadotropic substances, that dangerous effects may be produced upon the sex glands.

In our clinic, over a five-months' period, we have observed a mixed, unselected, dietary-uncontrolled and locally-untreated group, under care with an anterior pituitary-like gonadotropic substance. Initial improvement has been the rule. All cases have shown paling and absorption of the smaller papular lesions and a tendency for resolution of the pustules. A degree of clearing of the skin on affected sites has been noted quite constantly. Beyond this stage our cases would not proceed, even with continued dosage. Seborrhœa continued to flourish as before. Relapses were prone to occur when the remedy was withdrawn. The best results, in the largest number of cases, appeared to be maintained in young adolescents. When completed knowledge of this group (and also an industrial one under similar control) is collected, we shall report our findings. Thus far, against initial "flesh worm formation" and seborrhœa, the remedy makes but little progress.

McCarthy and Hunter failed to show advantage over roentgen treatment alone when x-rays and glandular preparations were used together.[4] The results following the use of thyroid, ovarian, orchitic and placental extracts by mouth have not been spectacular.[5] Underlying menstrual disorders have been corrected in the female, but the acne lingers on unchanged. Injections ranging over the whole gamut of glandular preparations have been tried, but sustained satisfactory and constant results are not the rule. The therapeutic approach to this disorder of obvious endocrine origin is as yet with but imperfect glandular materials.

FOOD

With the gonad accelerator suddenly pushed forward at puberty, the liberated hormones speed growth of body frame-work, muscles, hair and glands. Fuel is required for increasing developmental demands. Sweets and greasy foods are consumed in quantities. Accompanying indigestion is the rule according to Whitfield.[2] He interdicts the fat radicle found in whole dairy products (milk, butter) and in goose and duck. And we add cheese, chocolate, cocoa, nuts and fried foods to his list. Increased blood supply may call for increased secretion without the stimulus of bacterial invasion. Sir Malcolm Morris interdicts mustard, pepper, pickles, spices, catsups, sauces, curries and coffee. These may well be avoided if a clear skin is desired. Sweets have not been proved to influence acne vulgaris. Studies by Crawford and Swartz[6] and also by Strickler and Adams[7] have not found higher blood sugar levels in these cases. In fact the first mentioned observers found improvement under a high glucose regimen. Derivatives of the cocoa bean, being of a fatty nature, must still be forbidden, however.

ALLERGY

Food stuffs play pranks on the acniform individual. Cunningham and Mendenhall[8] would have us consider every acne case as allergic, and they consider acne a form of allergy on an endocrine basis. It is worth while studying all acne cases from this angle, searching by patch, scratch, intradermal, or elimination methods for suspected food reactors.

BACTERIOLOGY

It has been stated by Goldsmith that bacterial infection is still widely blamed as the cause of acne vulgaris. In his investigations, when acne pustules were found to contain staphylococci, these organisms were also found to be present in equal or in greater numbers in the skin. His small series of intracutaneous tests with mixed vaccine of *Staph, albus* strains (derived from acne pustules) did not reveal any difference in this sensitiveness of persons with or without acne vulgaris. Sabouraud disapproves of the view that acne pustules are caused by staphylococci. Whitfield blames a microbacillus as the causative agent of comedo formation and the staphylococcus of suppuration.

At our clinic vaccines of all kinds—both autogenous and stock, including those from

stool cultures — have been used with varying success. Toxoids have not presented a brilliant exhibition. Bacteriophage, locally, intradermally or subcutaneously has not, in our hands, given spectacular results. All these bacterial agents have been weighed by us and found wanting.

DRUGS

Sulzberger *et al.*[9] have enlightened us on the similarity of acniform eruptions arising from external or internal causation to those caused by the halogens. "Is not the process the same, whatever be the irritant? May not hormones, food, drug or toxic products, from whatever source, irritate the pilo-sebaceous apparatus?" The follicle with its rich vascular supply, is liable to be damaged by excreted products. These irritate the over-sensitive pilo-sebaceous apparatus, giving rise to the typical acne response of comedo, papule, pustule formation.

Pimple pills—blood purifiers—are still in demand by the laity. Their therapeutic virtues depend on their potassium iodide content. Sarsaparilla masks the unpleasant iodide, and these combinations are liable to accentuate the pustular elements in acne vulgaris. A generation ago French dermatologists pushed iodides to the saturation point, and deliberately provoked pustulation in their acne cases. At times clearing was noted after the drug was withdrawn. Engman and Mook's explanation may account for the fact that, apparently, iodides provoke a lymphocytic response accompanied by a leucocytosis. A digestive effect of the inflammatory products occurs and connective tissues replace the diseased ones. This scar tissue is not a desirable therapeutic result.

Nowadays we shun the iodine radicle lurking in these products. Even the contents of the table salt-shaker, containing its iodized sodium chloride, should be regarded as an enemy. Wise and Sulzberger[10] interdict fish, agar-agar, certain laxatives, lettuce, cabbage, artichoke and spinach for their iodine content. Bluish, cyanotic acne lesions arise from iodide intake. It has been found satisfactory to patch test over the affected and good skin, with a 25 per cent potassium iodide ointment made up in a vaseline base. A papular or pustular response in 24 hours on these sites condemns iodine.

Bromides, so frequently found in nerve tonics and headache cures cause much trouble. Even potassium bromate used for bleaching flour has been accused. Bromide, at times, gives rise to coarse buttons on the skin, as well as a true bromide acne. The substitution of the chlorine radicle for the tissue fixed bromine is accomplished by putting the patient on a high plain salt intake or even administering salines intravenously.[11]

TREATMENT

Laxatives have but little or no place in modern medicine, according to Tidmarsh.[12] Bowel management in acne vulgaris may be successfully accomplished by dietary regimens, and youth may be spared the dangerous explosive evacuants so commonly taken.

Acidophilus culture has been another fad indulged in of late years. As an intestinal flora changer and an eliminator it has its beneficial place. Creosote has been advised as an intestinal purifier. Yeasts of many varieties are advised in every magazine one reads. Many an unsuspecting stomach has been converted into a brewer's vat, and, in vain too, has many a fastidious female endured flatulence from yeast as a means to a fairer countenance. The advent of "B_1" in concentrated tablet form may give the desired anti-infective results without these unpleasant and embarrassing effects. A granular, cheese-flavoured product has found favour in our hands during the last four years. It acts as an efficient medium for supplying the diet with vitamin B complex in the form of B_1 - B_2 containing riboflavon and the dermatitis factor B_6. As a laxative tonic and digestive agent we have been particularly pleased with its results in controlling pustulation in acne vulgaris. Its use, as with any other yeast products, does not prevent blackhead formation but skins clear considerably during its ingestion.

Tablet combinations of tin oxide, calcium sulphide, and dried yeast have also dried up pustules, but still the underlying comedones do not disappear. Wipe out septic foci if any exist. Evil-smelling manganese butyrate and the colloidal manganese preparations have overcome pustulation but our series did not give the excellent final results that Oliver and Crawford[13] obtained with its prolonged use.

There is more to acne vulgaris than that which meets the eye. So, often times we treat the results and not the underlying cause of the disease. Thus, relapses from treatment are all too common. The much vaunted, highly scented and coloured complexion soaps fail miserably in treating acne, which, after all, is more than

skin deep. Use common sulphur soap for drying the skin, and mild mercurial soaps for their antiseptic action. Cleansing creams had best not be employed. A shaving cream of the non-medicated or non-mentholated variety makes an excellent bland shampoo and skin-cleansing agent. Acne occurs in the oily, who are not necessarily unclean. However, soap and water have a definite use in attaining the desired approach to godliness.

Steam packs open pores, clean pustules, and promote oil flow. Their use, followed by the hypertonic saline compresses (2 ounces to 1 quart water) as suggested by Whitfield,[2] dries the skin, contracts gaping follicles, and improves skin texture. "Soap, steam, salt, scale" is a good nightly routine for the acne case. Extensive and severe peelings are no longer fancied. Mild exfoliants combined with an antiseptic are now the fad. Adhesive plaster masks have their advocates. Lotions and pastes seem to serve best in place of ointments. "Select sulphur for the oily; exhibit mercury for the pustular". Although we use them, comedo compressors are no longer put into the hands of our patients. We feel that harm results from their manual interference.

The McGovern technique of hair-combing before face-washing is a rational procedure. Don't spread acne and seborrhœic bacilli to other areas.

Sunshine and its artificial sources give local antiseptic and peeling action. It is held that its benefits are due to activation of ergosterol in the skin. Viosterol,[14] from this reasoning, has been given over long periods with beneficial results. Ointments containing vitamin "D" are in use for other types of skin conditions as well. A concentrated vitamin "D" has been used as a routine internal measure for our seborrhœa and seborrhœic dermatoses and acnes, occurring during the actinic lean winter months. Skins have been burned to a crisp with actinic rays. Their use is less dangerous but the results are also less effective than with x-ray. Six to twelve meter short-wave treatments are beneficial, particularly in controlling pustulation.

With McKee[15] we agree that x-ray is the best all-round agent for completing the therapy of acne vulgaris. It acts by drying the glands and aiding absorption of inflammatory products. It is to be used not as a cure-all but only when all possible contributing and complicating factors have been eliminated or corrected. The relapses that occur, and, remember, they do occur even after x-ray treatment, appear because primary causative factors have not been removed. X-ray in correct dosage does not produce wrinkling, atrophy, or scarring. The possibility of shallow, pock-like scars on the sites of old lesions must be kept in mind. Warn the patient-parent combination of this possibility. The fine capillary network, the telangiectasia, may arise if exposure to too strong sunlight is given soon after x-ray. For this reason, Pirie advises against a combination of sun-lamp and x-ray treatment. If used with the knowledge that acne is, in a sense, a constitutional disease with dermatological complications, it is a most certain method of obtaining a clinical or a permanent cure in the shortest time, particularly if combined with adequate medical attention. It should be remembered that x-ray with its accompanying hazards, should only be employed by those skilled in its use.

SUMMARY

The general practitioner should shoulder his responsibility in correcting this disfiguring skin disorder. All of the weapons, except possibly x-ray, are at his command. Nature will take care of some part of the condition, but advice regarding masterful inactivity as a therapeutic measure is not likely to be favourably received. Correct physical imperfections, advise a hygienic routine, and then treat the local skin condition.

Many a comedo pustule studded face masks an incipient neurotic that may become a full-blown psychotic. Inferiority complexes have their beginning here. Help prevent them.

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SKIN DISEASES IN CHILDREN

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DURING the year 1936, 2,760 patients attended the Skin Clinic at the Hospital for Sick Children in Toronto. Of this number 1,097 were new patients, and the balance, 1,663, repeat patients.

TABLE I.
THE VARIOUS DISEASES SEEN DURING THE YEAR 1936

	Number	*Percentage*
Acne vulgaris	16	1.44
Alopecia areata	13	1.17
Dermatitis (artefacta)	1	0.09
Dermatitis (seborrhœica)	38	3.42
Dermatitis (venenata)	101	9.09
Dermatomycosis	39	3.51
Ecthyma	1	0.09
Eczema	159	14.31
Furunculosis	12	1.08
Granuloma annulare	1	0.09
Herpes simplex	5	0.45
Herpes Zoster	3	0.27
Ichthyosis	13	1.17
Impetigo (Bockhart)	4	0.36
Impetigo (bullosa)	2	0.18
Impetigo (contagiosa)	203	18.27
Keloid	9	0.72
Molluscum contagiosum	8	0.72
Nævus (pigmented)	8	0.72
Hæmangioma (cavernous)	87	7.83
Hæmangioma (araneus)	7	0.63
Hæmangioma (flammeus)	11	0.99
Pediculosis capitis	13	1.17
Pediculosis corporis	2	0.18
Pityriasis rosea	20	1.80
Psoriasis	10	0.90
Scabies	93	8.37
Scrofuloderma	1	0.09
Tinea tonsurans	43	3.87
Tinea circinata	36	3.24
Urticaria	11	0.99
Urticaria papularis (strophulus)	29	2.61
Verruca plantaris	28	2.52
Verruca plana	3	0.27
Verruca vulgaris	68	6.12

With reference to the commoner diseases, impetigo contagiosa accounted for 18 per cent of the total, or in all, 203 patients. The disease, as you know, occurs throughout the year, but is more prevalent during the winter months. We use various treatments. Ten years ago all patients apparently did well with full strength ammoniated mercury ointment, but today this is not the case. A more useful remedy is a mixture of sulphur in calamine lotion, five grains to the ounce, applied freely during the day; and at night, a thorough application of ammoniated mercury ointment and zinc-oxide ointment in equal parts. It is important to remove crusts morning and evening with warm olive oil, followed by warm boracic solution.

The second most common disease was eczema. There were 159 patients, or 14 per cent. All eczema patients do not attend the clinic. They go to the medical clinic where the diet is corrected, and some are referred to the skin clinic, so that the number 159 does not represent all patients with eczema attending the out-patient department. Apart from dietary changes and nursing care, the most improvement is obtained by the removal of external irritants and the thorough application of crude coal tar ointments, examples of which are given in the next chapter.

Dermatitis venenata, or eczema, as many would classify the group, occurred third in frequency, namely 101 patients, or 9 per cent. The term refers to a disease allergic in origin, arising primarily from an external irritant where the irritant is known. Due to repeated irritation the skin becomes inflamed, primarily at the area of contact, but later over widespread surfaces. The lesions improve and recur until the skin develops a protective coat of oil. Where the disease has continued on to adult life it is not unusual to find that these patients have a dry skin, or xeroderma, that is a congenital deficiency of oil and sweat glands. In my opinion, the most common irritant in the infant is saliva. The cheeks and hands become macerated with all the signs of inflammation due to repeated wetting from drooling and sucking the fingers. The second most common irritant is wool worn as a jacket or bonnet, or that worn by the